THE ARCHITECTS' JOURNAL

standard contents

every issue does not necessarily contain all these contents, but they are the regular features which continually recur

NEWS and COMMENT

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The Industry

PHYSICAL PLANNING SUPPLEMENT

CURRENT BUILDINGS

HOUSING STATISTICS

Architectural Appointments Wanted and Vacant

No. 3063] [VOL. 118

THE ARCHITECTURAL PRESS

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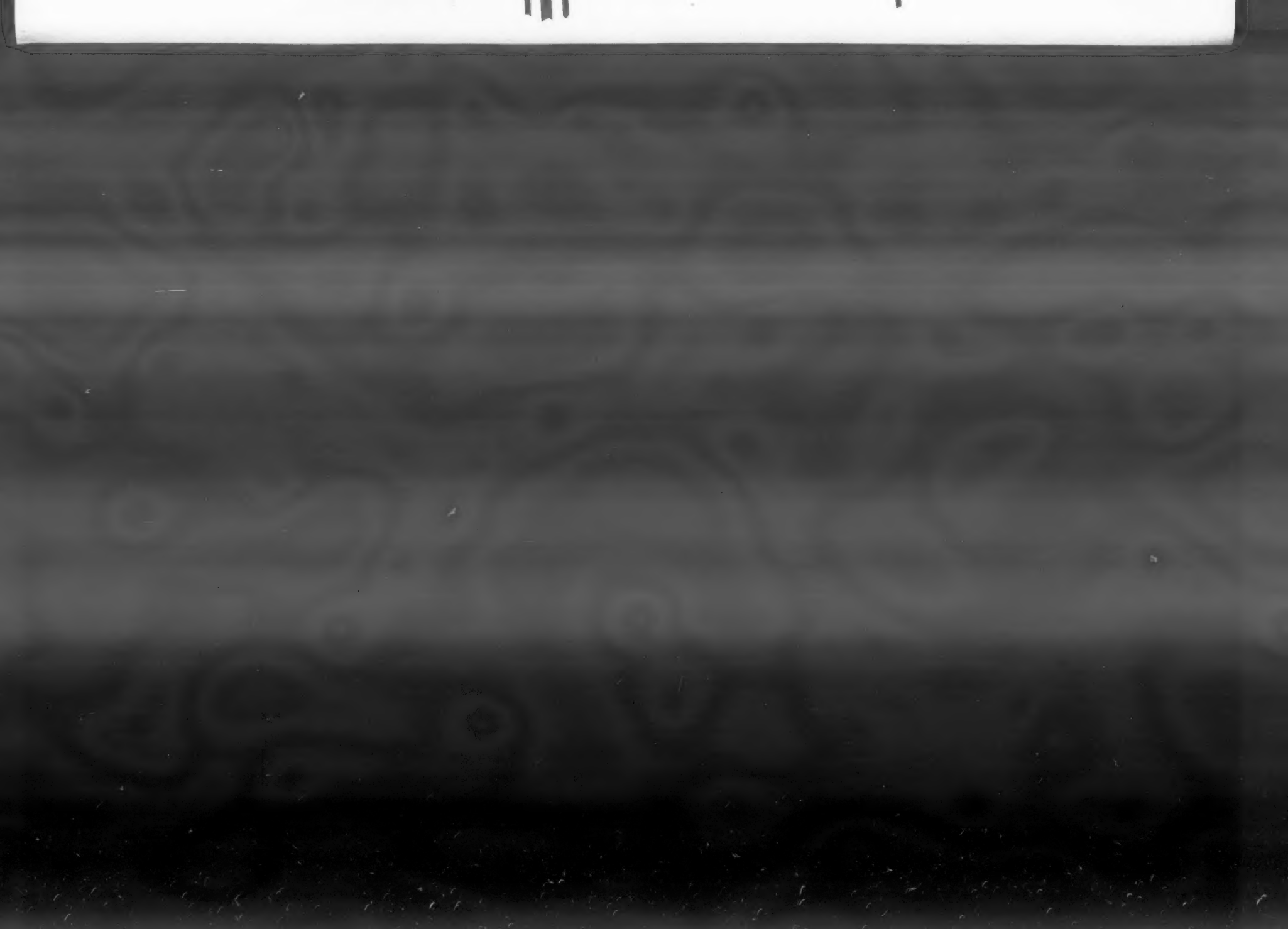
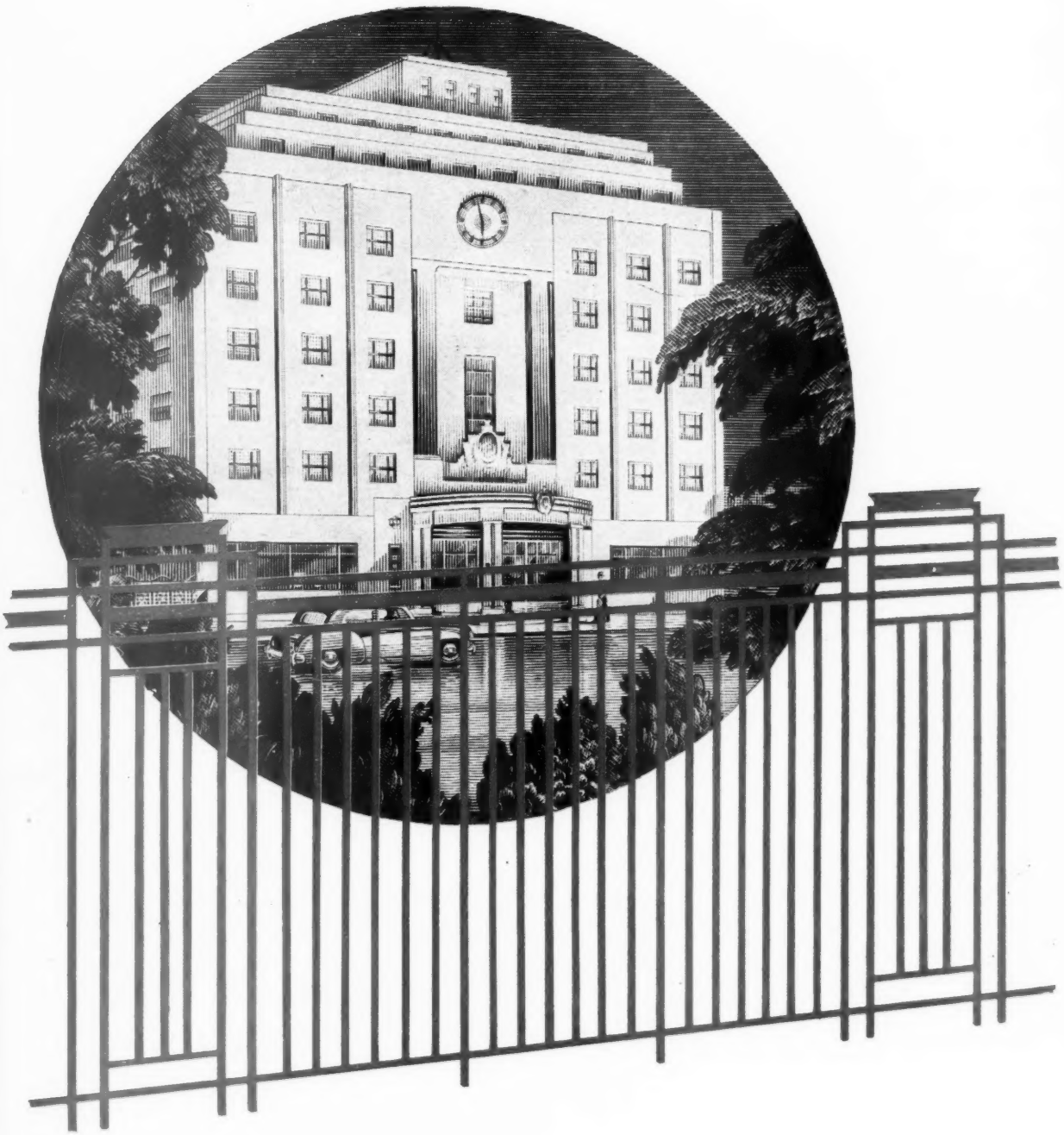
Registered as a Newspaper.

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	Sloane 3158/1601
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2450
ILA	Institute of Landscape Architect. 12, Gower Street, W.C.1.	Museum 1783
I of Arb	Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197/5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 14, Great James' Street, W.C.2.	Chancery 7718
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	Modern Architectural Research Group (English Branch of CIAM) Secretary: Gontran Goulden, Building Centre, 26, Store Street, W.C.1.	Museum 5400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers, 10, Princes Street, S.W.1.	Abbey5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington	Molesey 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London. E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5051
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988





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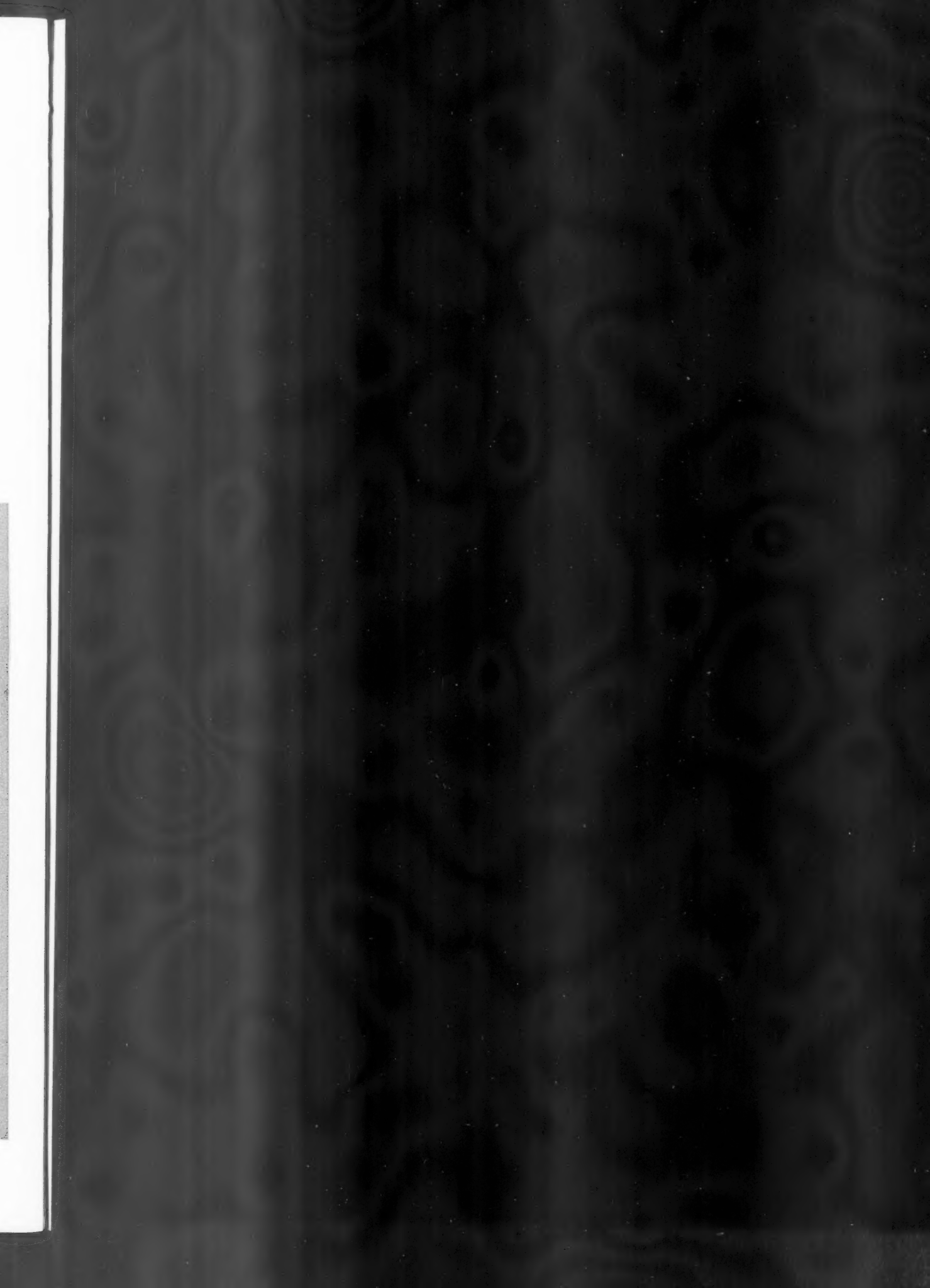

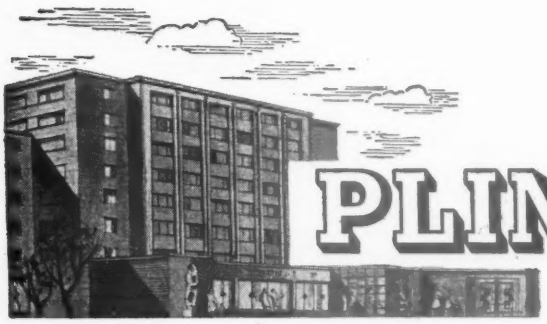

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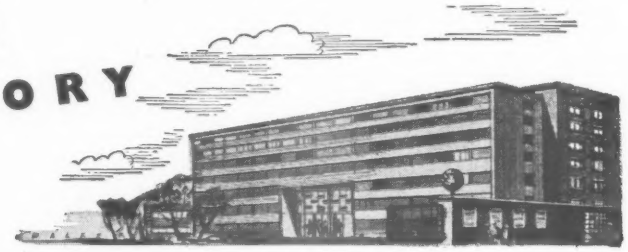

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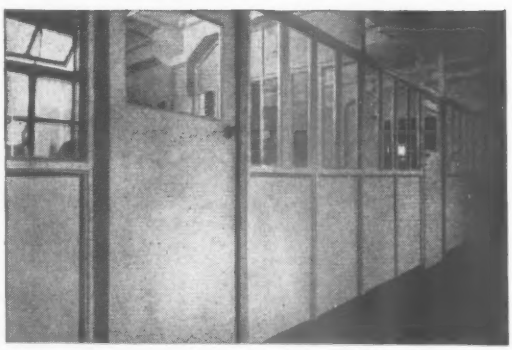

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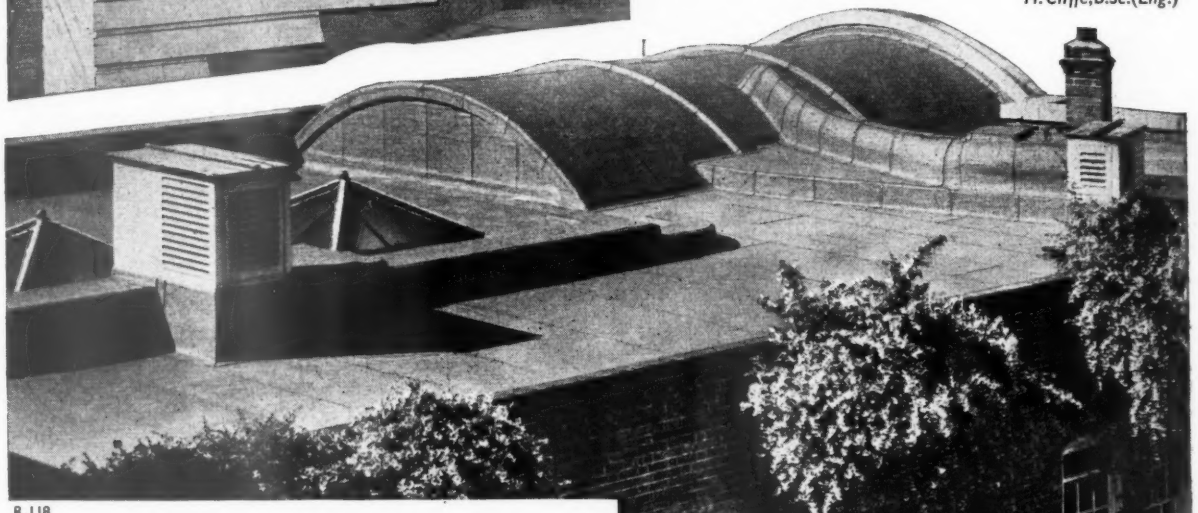
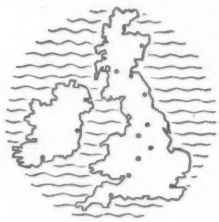
Municipal Offices, Bromley, Kent. Borough Engineer : H. Cliffe, B.Sc.(Eng.)



R.118

The Ruberoid Contract Department



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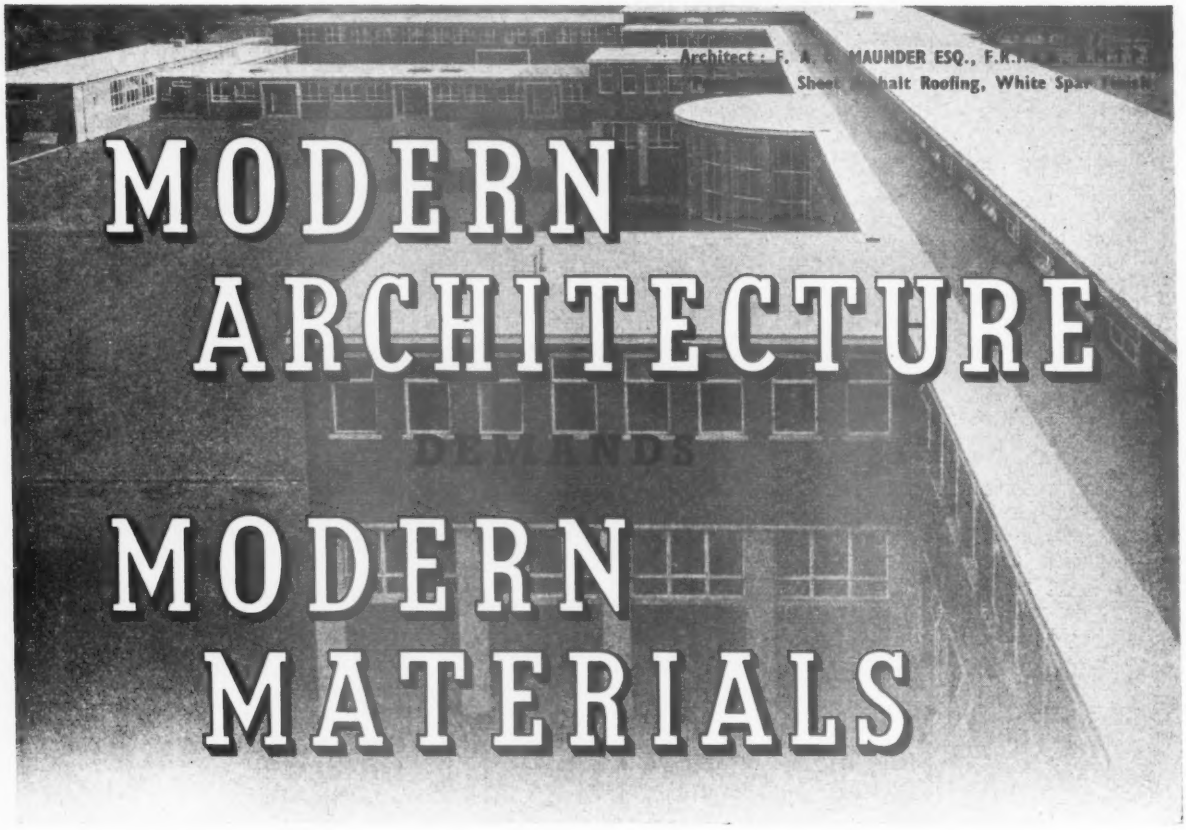

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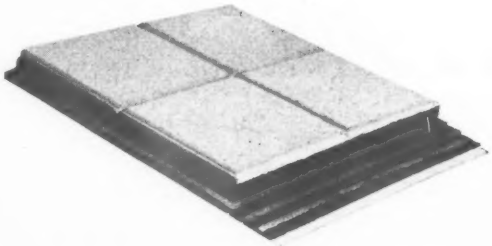

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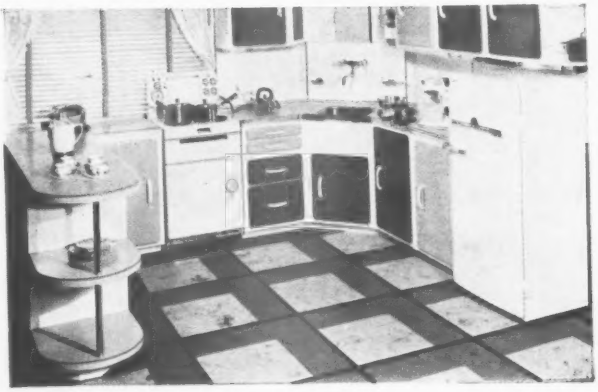

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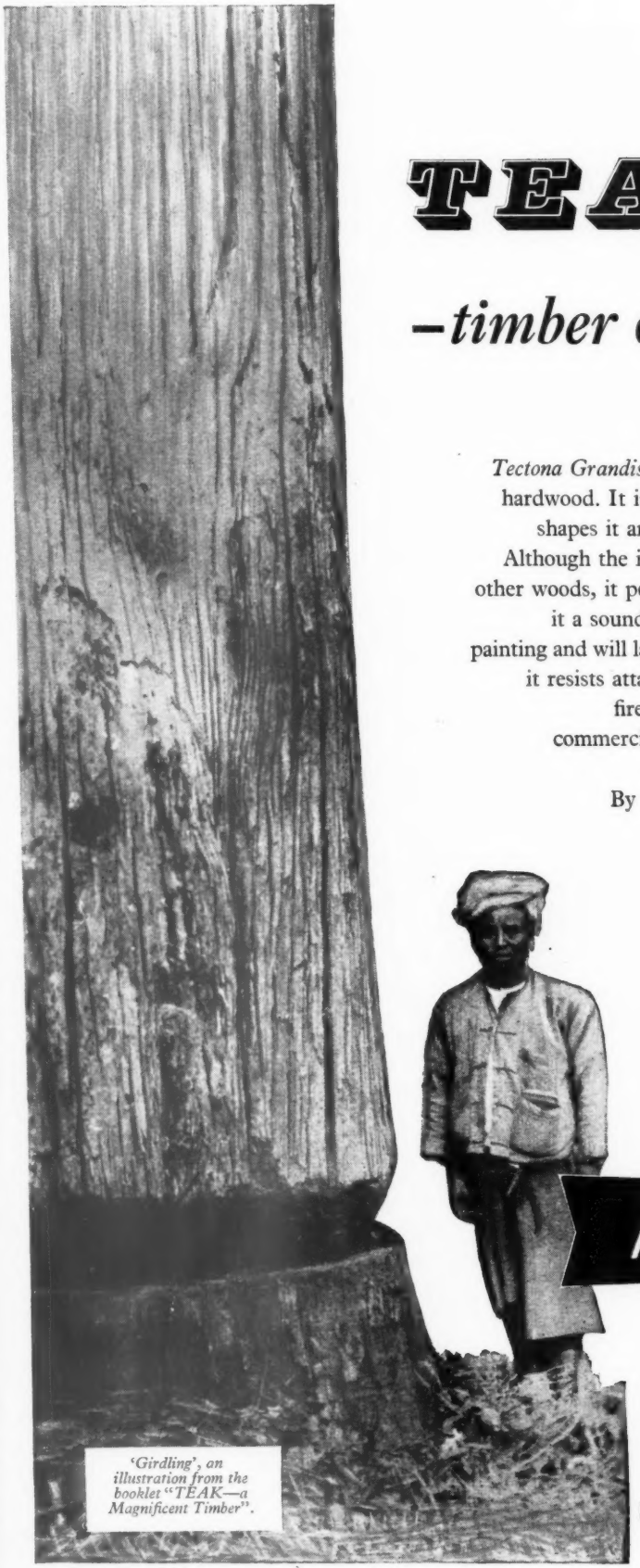

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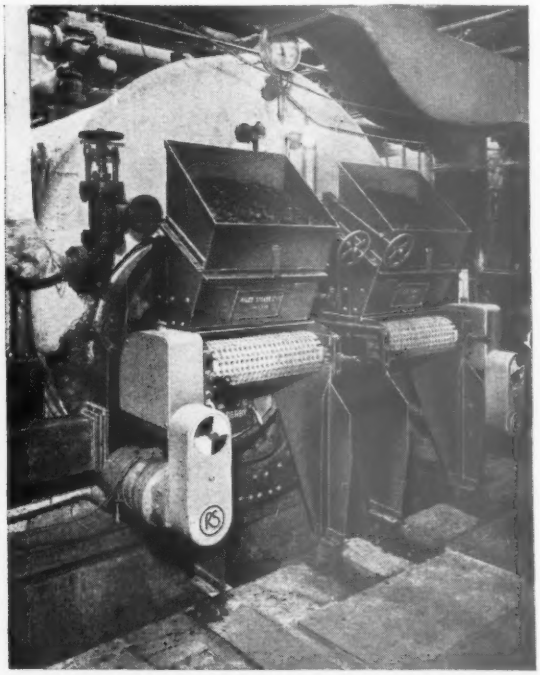

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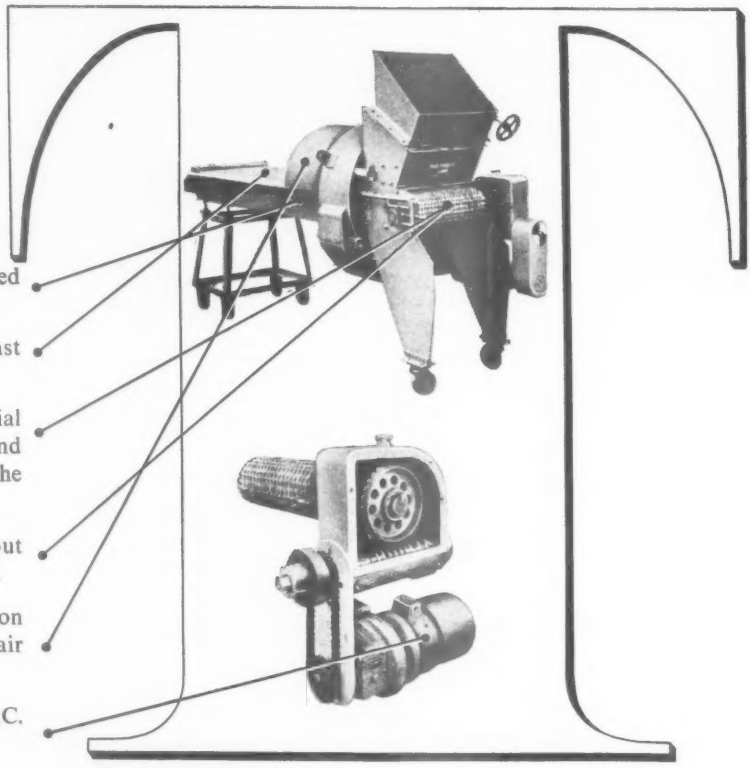

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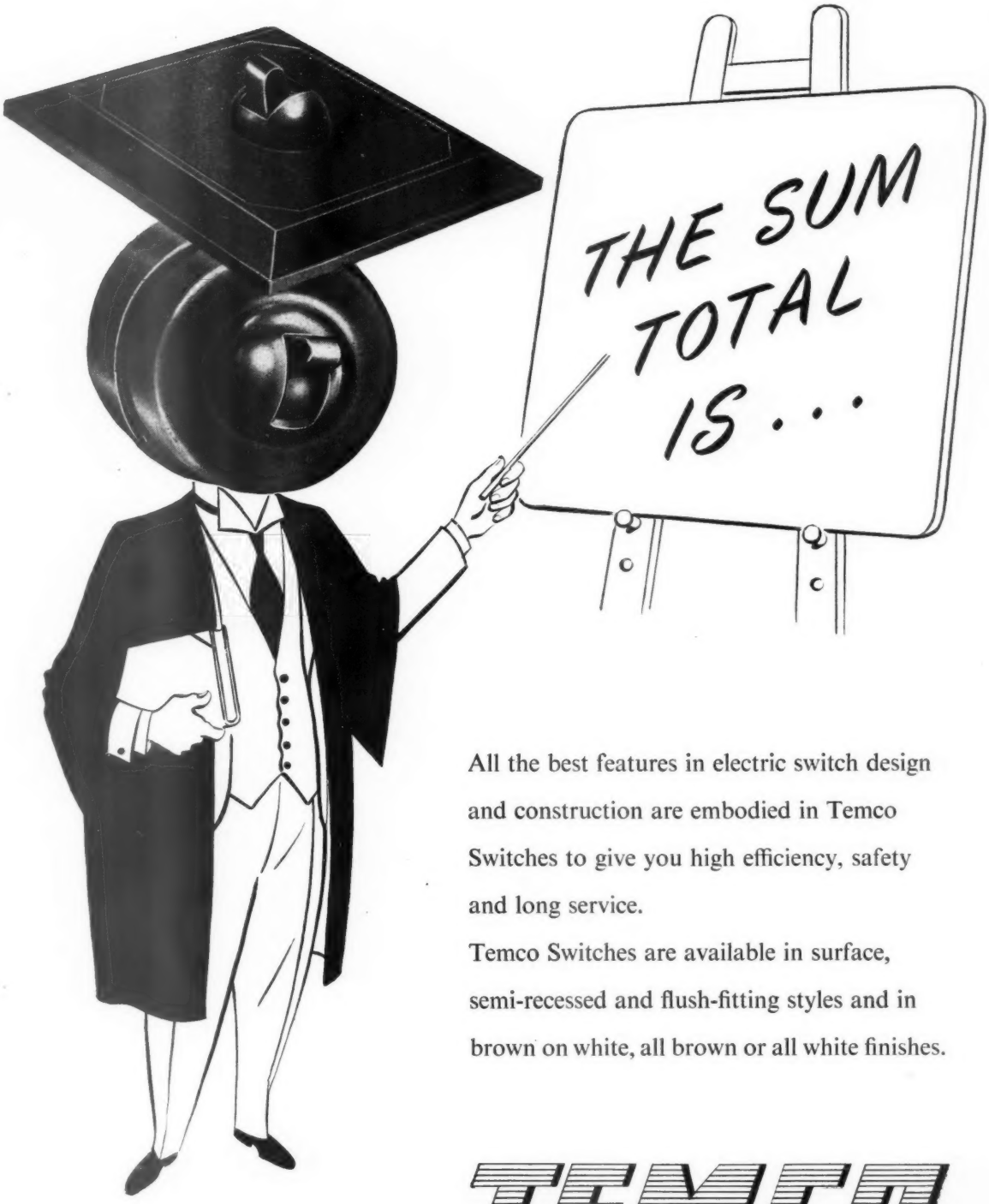

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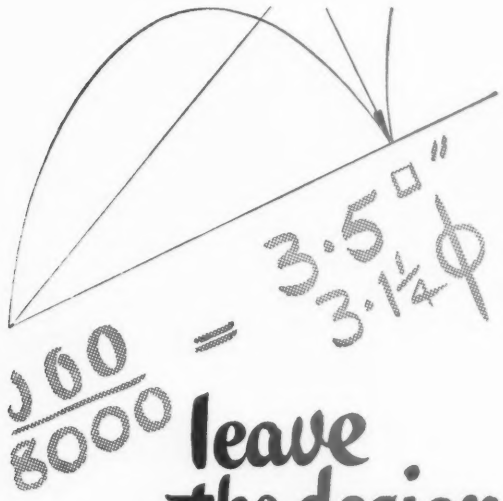

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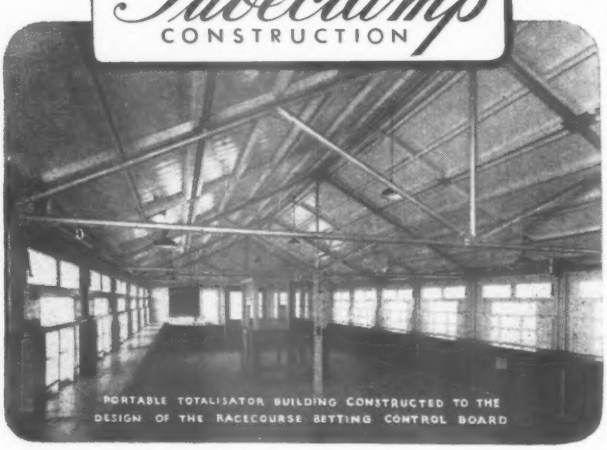

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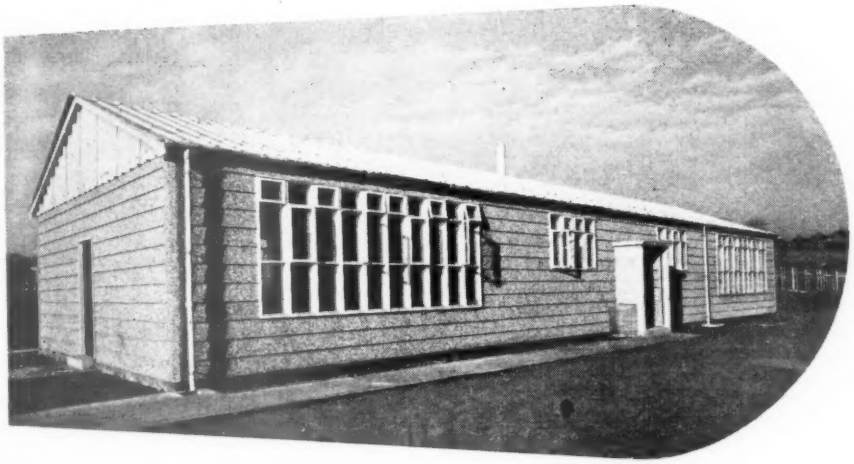

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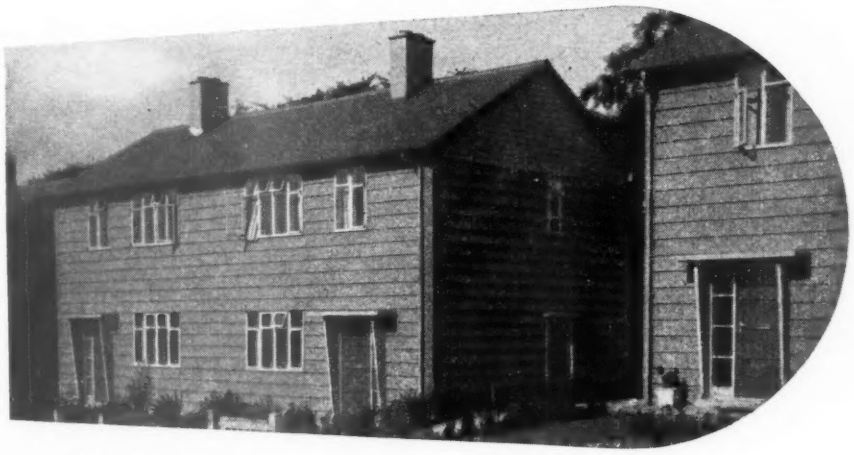

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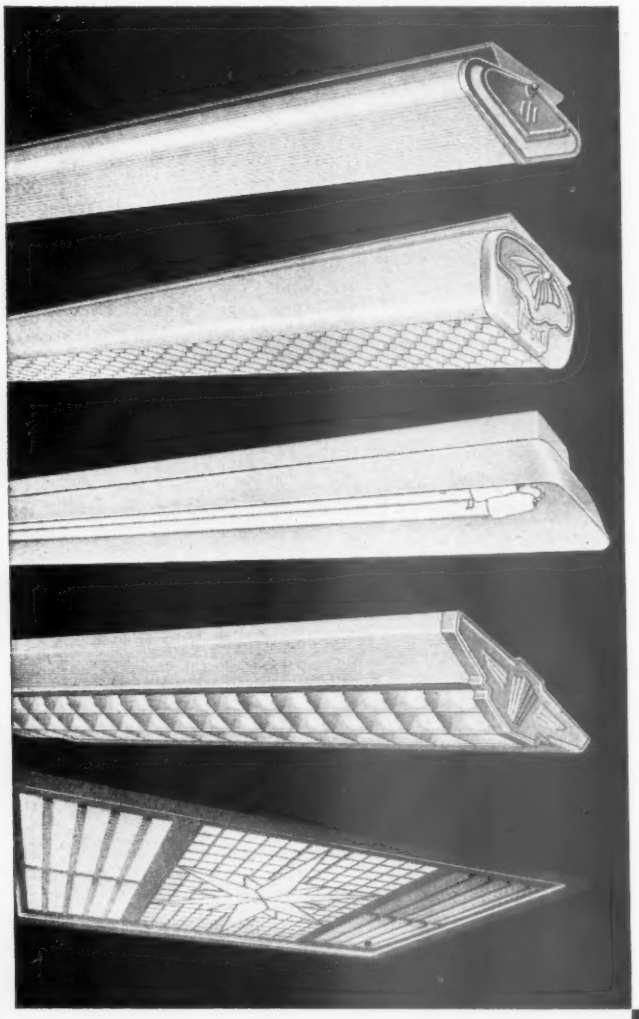

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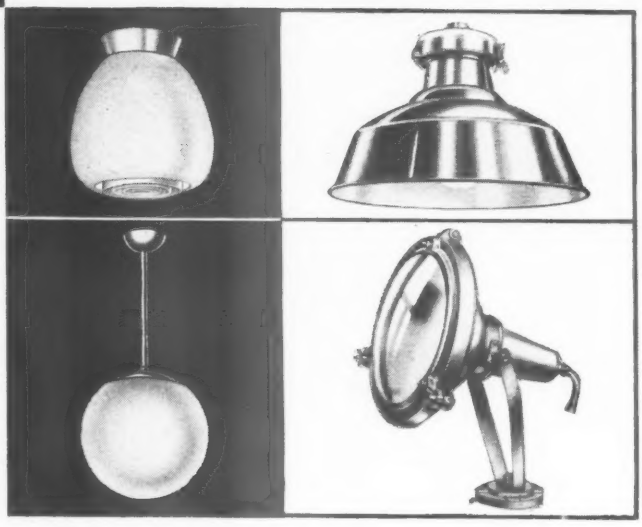

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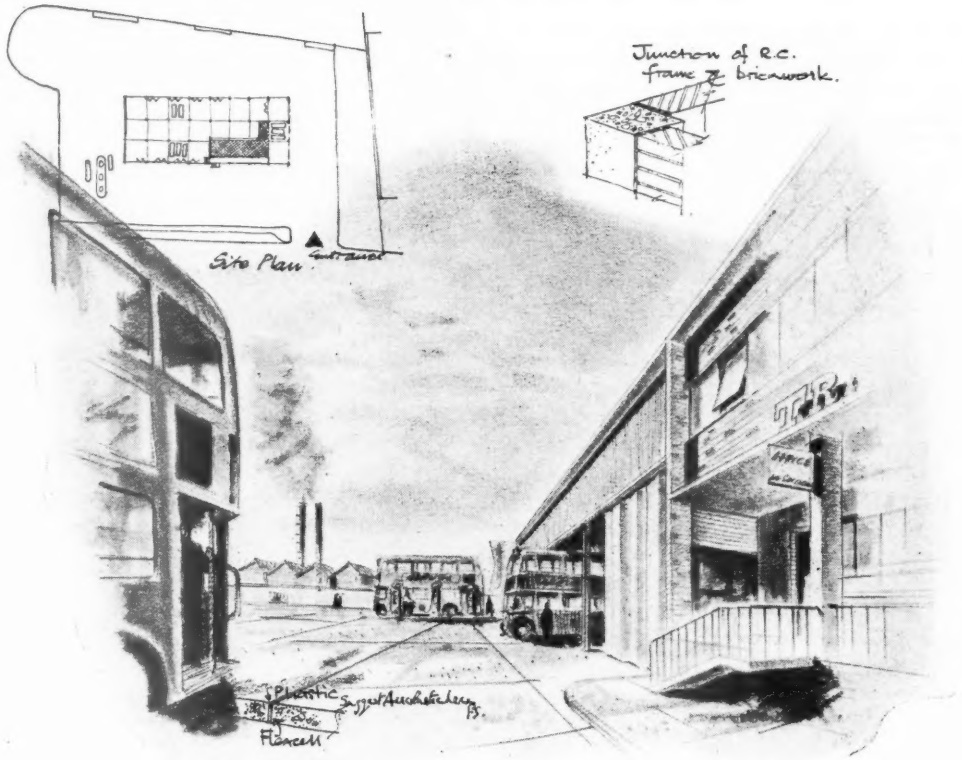

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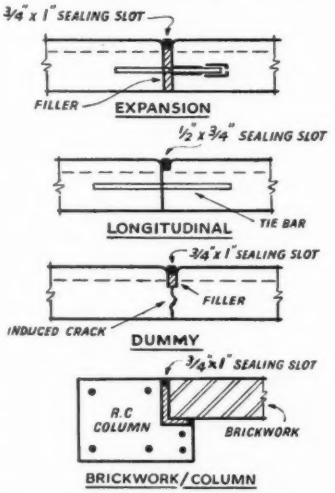

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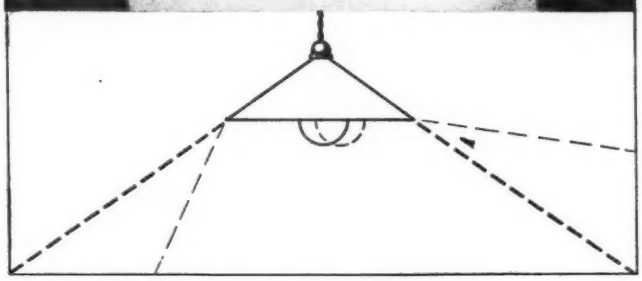

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No. 3063 November 12, 1953 VOL. 118

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BETTER PLANNING

At a dinner given by the Improvements and Town Planning Committee of the Corporation of London, Chairman Charles Glenny attacked the system of planning approvals by which LCC agreement has to be obtained to the Corporation's proposals. Readers will recall the case of Bucklersbury House, that excellent and efficient design in terms of daylighting (therefore low electric light bills and less staff sickness), ease of circulation for office staff, and avoidance of traffic noise. No doubt these points will be noted by other city developers anxious to get a good return for their money. They may also note the regrettable fact that it took *four years*, and a sizable chunk of the client's money to get that good result.

*

What, one may ask, can architects do to save their clients such a waste of time and money? There is, ASTRAGAL suggests, an answer. The architect, having been briefed by his client should straight away insist on a *joint* meeting with representatives of the City and LCC planning departments, before he starts designing, so as to get early agreement from both controlling bodies on the planning and design principles to be adopted.

*

It no doubt seems absurd to Charles Glenny, chairman of the town planning committee of such a proud and august institution as the City, that another body, the LCC, should exercise yet further planning control. However, such control was given by Act of Parliament and it must seem pretty obvious to the unhappy would-be private developer (who spends the money and runs the risks), that close collaboration and co-operation between the two controlling bodies and the architect will get quicker and more economic results *now* than continual protesting against an Act already six years old.

BETTER PLANNING PUBLICITY

This brings us to the subject of planning publicity, and on this Professor Sir William Holford had something to say, last week, in his excellent inaugural address as President of the TPI. Indeed, the Institute's sessional programme is, in Holford's words: "intended to set the stage for discussion of . . . the real value of the planning process to workers and managers, to family wage-earners and ratepayers, to the housewife and the elderly, to the farmer, the traveller and the citizen." He might have added "the private developer and the factory-owner." For, as town-planner Percy Marshall has repeatedly said, these two citizens are, *ipso facto*, planners, and they should look on planning legislation as an aid and asset and not as a hindrance. Alas, that is not how it usually works out in practice. Perhaps the TPI's new president, who is potentially the best they have had, or are going to have, for years, can do something towards making planning a positive force rather than a negative, and very badly publicized (see your Dailies) factor in the country's redevelopment.

*

Professor Holford, who was speaking on November 5, to the accompaniment of red and green lights and a fusillade of cracks and bangs (outside the hall, let me hastily add), also put in a plea for money to allow more fundamental research to be undertaken—of the kind suggested by the Schuster Report. It is alarming to learn that there is no money for research, apparently, save the Nuffield Foundation's short-term grant to the Social Research Unit, which is attached to the Town Planning Department of University College. Here, surely, is a most serious lack which the government should remedy.

PROS AND CONS

A few weeks ago the LMBA gave a very pleasant lunch (at the Savoy Hotel) in honour of that staunch defender of the 20th century Britisher and advocate of City rebuilding, Lord Mayor Sir Rupert de la Bère. Among the guests were Sir David Eccles, presidents and chairmen of every conceiv-

able building organization and a judicious sprinkling of journalists.

*

Last week the LMBA was at it again—a tea, this time, following the presentation of their newly-instituted bronze and silver medals to the prize-winning building apprentices in the City and Guilds of London Institute examinations. The ceremony was held in the Goldsmiths' hall; Dr. Wand, the Bishop of London, gave the prizes, the Lord Mayor ("We have the best craftsmen in the world." True, I wonder?) defended the island race again, and Sir Frederick Handley Page pointed out that the country's salvation depends on everyone working and studying harder than foreigners. Not quite such a distinguished audience, perhaps, but the usual sprinkling of journalists.

*

Now the RIBA no doubt cannot compete with the wealthy LMBA in lavish hospitality. But it can compete in having speakers at its functions who "make news" and in trying to ensure that journalists attend to report them. Nobody has to be reminded about doctors and dentists, so they have no need to advertise themselves. But in the highly vocal building industry (as Guest Editor Professor Bowen pointed out to me, recently) it is debatable if architects should gag themselves unnecessarily on grounds of "professional conduct."

*

This is not one more swipe at the hard-worked and worthy officials and committee-men in Portland Place, who are making great efforts to get architects better-known by the general public, but merely a plea for all those who might help the profession's "public relations" to watch how cleverly other bodies manage to keep themselves in the public eye.

RALPH TUBBS, HE SAY . . .

A quiet and attentive house heard Ralph Tubbs hold forth, rather diffidently, on his Indian Students' Hostel, at the ICA last week. Unlike some of the architectural discussions held there, this one was marked by a steady flow of question and comment, interested but not heated—apart from the usual demand for more People's Detailing, coupled as usual with comments quoted from a hypothetical layman who proved not to have been speaking about this building at all.

*

What emerged memorably from the discussion was a series of aphorisms or professions of faith which ASTRAGAL, in his capacity of occasional Boswell to the architectural profession, made a point of recording in the hope of misleading later generations of architects. Of the little prayer-room on the roof of the hostel, Mr. Tubbs said that he had tried to give "a sense of the ultimate by using pure geometry" (just to prove that Alberti is not dead?). Of the dropping stairwell beyond the entrance, into which one cannot see until one is upon it, he said: "It is an unknown pit in which tortures might take place, or gold could be mined." Following on from that he postulated that all real architecture should have a degree of mysticism, though it sounded at times as if he meant mystification.

*

He showed a blessedly visual approach when he announced that a building without shadows on its façade was "a denial of all architecture," and it also turned out that the careful alignment of the main horizontals of the Hostel with those of the Adam houses in Fitzroy Square was due not to the planning authority putting its foot down, but to his firm belief that the environment must be respected.

ASTRAGAL *was a little surprised to find this pre-war Tudor-bethan "folly" within the area administered by the Westminster City Council. It was recently unveiled in Soho Square when an over-growth of trees and bushes was swept away to make room for a proposed public open space.*

SIR HUGH'S HUES AND HOGARTH

From the ICA to the AA, which has now turned itself into something of an art gallery. In the members' room are shown forty charming water-colour sketches by Sir Hugh Casson, while the dining room contains an exhibition of larger drawings by Paul Hogarth, called "Buildings and People."

*

These two excellent realist draughtsmen present a fascinating contrast. Sir Hugh's gay sketches have the quality (and the size) of 35 mm. Kodachrome snaps—colour is an integral part of their make-up. And although Paul Hogarth occasionally gives the illusion of colour, by the use of coloured paper or mounts, his drawings belong more to the "bellows-mahogany-camera-and-tripod," black and white school. It is as though the photographer, having set things up properly, waited for the correct number of artistic peasants to group themselves appropriately.

NEW COLOUR BAR

An important article in *The Times* on November 3 dealt at length with the

Not to be Removed

Last week the LCC agreed to proposals for the future of the Festival Gardens and fun fair at Battersea, which had been made by their general purposes and parks committees. The published reports of these proposals were vague, but enquiries have shown that the Council is by no means vague about its intentions. In addition to preserving those two dreary examples of municipal parks architecture, the tea pavilion and the amphitheatre, it is keeping two of the most pleasant of the larger features on the site, the Fun Fair Piazza (above), designed by James Gardner, and the main vista (left) designed by Osbert Lancaster and John Piper. Other features to be retained are the Aviary Restaurant (to become a retreat for old people), the Cremorne Beer Garden, the Children's Zoo, the boating lake and much of the garden layout. The LCC is to be congratulated on following its proposals for the ambitious development of the South Bank exhibition site with a decision to preserve this other reminder of the gaiety and elegance of London in 1951, thus giving Battersea a chance of establishing itself as our capital's Tivoli.

threat of *apartheid* to the universities of Cape Town and Witwatersrand—the last bastions in the Union. If the threat materializes, as it almost certainly will, there will be no RIBA recognized school for coloured students in the African continent.

*

What means of recognized training can the RIBA provide for these subjects of Her Majesty? It is not too soon to think about how this statutory duty can be met. Another point—moral rather than statutory: the RIBA has no colour bar. Can it decently retain on its list of recognized schools any university that has such a bar?

URBANITY AND THE NEW TOWNS

The *Review*'s campaign against suburban sprawl in the new towns has found a powerful new adherent—no less a person than Lewis Mumford. Mumford is generally regarded as on the side of low-density, garden-suburb planning, but after visiting the English new towns this summer and seeing for himself what this kind of planning leads to, he has written an article in the *New Yorker* in very different vein. This is his closing paragraph:

"Something important in the old towns and villages that these New Towns often surround has been lost in the new designs—something that needs to be understood and adapted. The fact is that a city is not primarily a way of providing a vegetable garden for every inhabitant; above everything else, it is a means of providing a maximum number of social contacts and satisfactions. When the open spaces gape too widely, and dispersal is too constant, the people lack a stage for their activities and the drama of their daily life lacks sharp focus. Like every other amenity, public open spaces and private gardens must be scaled to the whole for which they are planned. Because the new planners were mainly in revolt against congestion and squalor, rather than in love with urban order and co-operation, the New Towns do not yet adequately reveal what the modern city should be."

*

You couldn't have the essential issue more clearly put than that.

RETREAT ERECT CURATE

Is the cultural gap between the *Evening Standard* and 9, Queen Anne's Gate closing at last? I see that the boys from the latter have had a go at the *Standard's* Word Game, and have made 225 words out of the one word, "Architectural."

*

ULCER ACHE RECUR? TUT!

ASTRAGAL

POINTS FROM THIS ISSUE

MOHLG's Operation Rescue for old houses .. below and page 590

RIBA President's address .. .. below and page 596

What the profession thinks about education: result of Professor Bowen's survey .. .. page 588

The Editors

PRESIDENT'S PLEA FOR THE PEOPLE

THE second inaugural address of the president of the RIBA (reported on pages 596-597) struck a note in keeping with both the man himself and the position he occupies, but its æsthetic implications went to a point of moderation which brought him into a near-agreement with what one might term the extreme left of the profession. The general trend of his opening remarks, in which he deplored the lack of differentiation of character between buildings nowadays, was summed up, in a properly academic manner, with the phrase—"By and large, people seem always to seek in music a theme, and never cease to love a tune." The meaning of this had been made perfectly clear by a previous reference to "the great and rich vocabulary of form and surface of the past."

If this is the position which the RIBA has reached from inherently conservative premises, then it shows a remarkable similarity to the doctrinal position which the extreme left has reached from inherently revolutionary premises. On both sides there is a demand for People's Detailing, for a decorative vocabulary whose primary virtue is its familiarity. On both sides the possibility of an acceptable formal and decorative language derived from our own time and our own æsthetic experience is scouted, and those who believe that such a language can, and does, exist now find themselves between the Scylla of Portland Place and the Charybdis of Marx house. In fact, those who hold this view may congratulate themselves that their adherence to a contemporary architectural vocabulary has now become a Middle Way, a Liberal Programme in the best English middle-of-the-road meaning of the phrase.

RESTORING OUR CENTRES

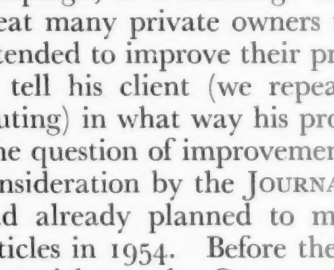
The Government is to be congratulated on the political courage it has shown in the proposals outlined in the latest White Paper, *Houses—the Next Step**. Most people must have realized that unless rents were increased many of the seven million houses built before 1914 would fall into decay, thus causing an appalling waste of the country's capital assets. Criticism of the new proposals is likely to be varied and vocal, but, if an increase in rent means a *pro tanto* increase in the amount spent on repair—and this proviso is, of course, of the greatest importance—the community as a whole must gain from this section of the Government's proposals.

* HMSO. 9d.

For the past eight years emphasis has been placed on new housing construction, and cities, towns and villages have been expanded. Now we must turn our attention from the perimeters to the centres. This gives architects a great opportunity. "Operation Rescue," as the MOHLG dubs its new campaign, is a challenge to the profession. By next year a great many private owners will be signing contracts for work intended to improve their properties. It is up to the architect to tell his client (we repeat *client*: we are not advocating touting) in what way his property can best be improved.

The question of improvements to old property has been under consideration by the JOURNAL editors for some time, and they had already planned to make it the subject of a series of articles in 1954. Before then Professor Bowen will contribute an article on the Government's proposals.

FOCUS ON



YOU

The JOURNAL'S *Guest Editor, Professor Bowen, continues to give results of his enquiry into the state of the architectural profession. (The names shown in the headpiece above were taken at random from the Architects' Register and are not related to the article.)*

Guest Editor:

Professor IAN BOWEN

Readers' Opinions on Methods of Training

IN this article it may be useful to turn from an analysis of the structure of the profession, as mirrored in our sample, to an analysis of its opinions. This could be done in many ways; perhaps the most striking features of the comments that were made (and amplified in many personal letters) ought to be dealt with first.

Of the 372 architects who sent in completed replies to our survey, 106 (or 28 per cent.) made more or less lengthy comments and remarks in the spaces provided on the enquiry form for that purpose. Fifty-one of these replies came from architects aged under 40 and the remaining 55 from the over-40 group. The opinions to be discussed are thus not predominantly weighted in favour of the under-40s, but represent a wide cross-section of the profession.

COMMENTS ON EDUCATION

The subject on which there was most agreement was education. By far the most frequently encountered criticism of the present, and often the past, methods of training and education of architects concerned the absence of practical training. Just over half of those making comments fastened on this one point. Both the young and the old critics thought that the architect leaving a school of architecture was often "unfitted to take any responsible part in office or contract work" during the period immediately after he had finished his finals. This was the phrase used by one architect of 26. An architect aged 59 said that the candidates from schools whom he interviewed usually had only elementary knowledge of drawing and of construction, despite their academic qualifications. Other architects in the same later age group emphasized the advantage of student architects doing a period of practical building work before obtaining their qualifications.

As one such senior man put it, "practical experience in a trade such as woodwork would be of great value and perhaps of more use than (what he called) the ability to make clever drawings."

WHAT IS PRACTICAL TRAINING?

This brings us to the question of what was meant by the phrase "practical experience," so freely used by those who found fault with the existing academic courses. Three things seemed to be in the minds of the critics. Some identified practical experience with attachment to an architectural office and with the preparation of drawings for an actual building. Others seemed to think of practical experience in terms of the business side of architecture and routine office work. And many people identified useful practical experience largely with knowledge of building techniques, and with a direct feeling for the materials in which the architect's ideas are finally expressed. Many, of course, seemed to have had all three ideas simultaneously in their minds.

Because of the three possible meanings of practical experience the critics were by no means unanimous in recommending a return to the system of articles in an office, as an improvement upon the present school training which the young architect receives. One architect, aged 39, remarked that "articles can be a farce" and made some sardonic remarks about being a cheap office-boy-cum-odd-job man. He pointed out that the articled architect often learnt more from the assistants in the office than from the employer, who would naturally often be too much preoccupied with the running of his business to give much time to instruction. Others pointed out that while articled pupilage gave a better practical knowledge of office work, weakness in design was a danger for the articled pupil.

On the other hand, those who strongly advocated schools training nearly always put in a proviso that it should be combined with practical training.

An architect, aged 49, remarked that while the pupil in a busy office had too little time to devote to academic study, the schools-trained student lacked the essential experience of the pupil. He thought that any radical reform of the system should consist of setting up a degree in architecture in which the public should have full confidence, and that this would involve some years of practical work, as well as the passing of a finals examination.

Looked at broadly there was a remarkable unanimity of views, since those who regarded the only true training to be a University architectural school were insistent upon the need for extensive private practice, perhaps "jumping about from one office to another," before a man could be regarded as a fully-fledged architect. There were many who suggested that practical tuition in building crafts would be invaluable. Only one of the 106 critics (aged 54, and no longer working as an architect) confessed himself to be old-fashioned enough to prefer articles to training in a school. Most of the older architects, including all those over 60 who wrote about this question, were in favour of a recognized schools system.

POSSIBLE REFORMS

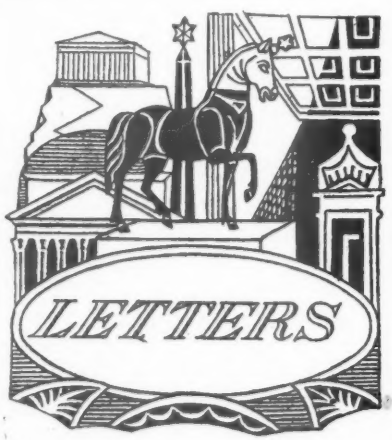
In view of the wide differences of view held by the architects who replied to our questionnaire on most subjects, the comparative agreement reached among them on education was both surprising and significant. It must be emphasized that the people we wrote to were chosen at random from the Register, and that replies were from a true cross-section of the profession, not just from those who are its most vocal or persistent critics. There can be little doubt that they are firmly agreed on wanting a reform of the present educational system so as to allow for practical training in an office, intercalated between academic courses; and there seems to be a strong feeling that a special feature of the educational period of practical work should be work on building operations. There can be no doubt at all that the advent of the schools training system is welcomed by the profession as a whole. All that is asked is that some of the contents of the course should be reconsidered and that adequate time should be given for men to grasp the importance of costing, of economic considerations, of office organization and of the actual techniques involved in handling materials.

DISCONTENT WITH CURRICULUMS

Few people in the profession wish to return to articles as a substitution for regularized education and qualifying examinations. But there is wide discontent with the curriculum, and with present methods of training.

This kind of discontent is not peculiar to architecture. Educational courses, and methods of practical training easily become dated, or unrelated to the current needs of the profession for which they were intended; but in the case of architecture a discrepancy seems to have become serious, and to demand a remedy.

The profession as a whole was well covered by our sample, and the profession as a whole seems to want this issue to be tackled in a radical manner.



Robert Aickman, Vice-President, Inland Waterways Association

Col. H. A. P. Disney

"Local Authority Architect"

A. E. Telling and

F. H. B. Layfield

Paddington Basin

SIR,—On behalf of the IWA I would like warmly to congratulate Gordon Cullen and Kenneth Browne upon their admirable proposals in your issue of October 29 for the development of the open space beside Paddington Basin.

In support of their scheme it may be of interest to mention that the Borough Council or their tenant would experience no difficulty in obtaining custom for his moorings. Even at present, without publicity or encouragement of any kind, without adequate protection against nocturnal intruders, and with almost no facilities, moorings in this area are eagerly sought for, and there is always a waiting list.

The Borough Council has a wonderful opportunity of initiating the first Municipal "marina" in the country: a marina being an attractive and well-served mooring for pleasure boats, without which no American township accessible by water, considers itself fully equipped. There would seem to be almost unlimited scope for marinas in Great Britain. The Canal Basin in the centre of Birmingham has been filled in to form a car park, and the City Fathers of Manchester seem equally eager to eliminate the Rochdale and Ashton Canals; but in both cities, and in many others, the installation of a marina would, as an alternative, and without in any way impeding commercial traffic, enable full architectural advantage to be taken of what could and should be the most attractive feature in the place, the waterway. We earnestly hope that Paddington will take the lead.

ROBERT AICKMAN.

London.

What Mr. Disney Thinks

SIR,— I am sorry to note that ASTRAGAL (November 5) seems incapable of taking my letter to *The Times* (October 29) seriously. Personally I am satisfied with the value I get for my money in the case of Cabinet Ministers, the Woomera Rocket Range, Street Cleaning and the activities of the Building Research Station. I am afraid I cannot speak about tinned crayfish as I know nothing about it, but I shall be surprised if they are subsidised. If ASTRAGAL is under the impression that he gets no value from these things then I am afraid he must be typical of my idea of an artist—not too intelligent, head in the clouds, unpractical.

He then wonders if I have any pictures, decorated china, etc., in my house. The answer is, of course, I have and *I have paid for them.* My house was designed by an architect, but if ASTRAGAL will refer to an English dictionary he will find that Architecture, being of general use to mankind, is a science not an art.

The thing that has astonished me most about this correspondence is that, if I am to draw any conclusions from it, then I am not a member of a small minority but of a very large one which includes some artists themselves.

H. A. P. DISNEY

Herts.

Official Architects Need Protection

SIR,—Within the last few months we have read of at least two cases of an Architect's Department being absorbed in that of an Engineer and Surveyor, and in the issue of the JOURNAL of January 22 last we read of a completely misleading and meddlesome document circulated to local authorities by the Institution of Municipal Engineers condemning the separate Architectural Department.

To me these facts are most disturbing, as no doubt they are to many others in the architectural profession.

I fully believe, however, that whilst the RIBA may have the matter very much at heart, if the status of the profession is to be upheld and enhanced, some strong action should be taken without delay to protect the province of the official architect from encroachment.

I am confident that there would be general approval if the RIBA were to open a vigorous campaign, with a view to making it legally impossible for an authority to employ a chief architect unless he were given the complete and independent control afforded to chief officials in the other professions.

Until such time as this could be done, I think that the RIBA could do well to remind all councils of the recommendations on the appointment of architects which I understand they circulated after the war.

"LOCAL AUTHORITY ARCHITECT."

Planning Applications. A Correction

SIR,—We ask the courtesy of your column to correct an error of fact contained in the interesting review of our book "Planning Applications, Appeals and Inquiries" in your issue of September 17. Since some of your readers may have a practical interest in this matter, we think attention should be drawn to it. Your reviewer writes:

"On page 11 of the book it is said that planning permission is not required for rebuilding war damaged buildings as they are exempt under the conditions of class XI of the General Development Order of 1950. But the Planning Act of 1951 provides that planning permission *is* required, as section 12 (2) (a) of the 1947 Act does not apply in such cases."

Your reviewer has misunderstood the position. The 1947 Act defines development and requires planning permission to be obtained for it. But the Act also empowered the Minister to make a General Development Order exempting certain classes of development from the need for express permission; among these exempted classes is the rebuilding and repair of war damaged premises. In order, however, to enable extensively damaged areas to be replanned, a power was given in the Order to cancel this exemption in particular places. When some local authorities had cancelled the exemption, they were sometimes met with the argument that the particular rebuilding proposed never constituted development in the first place (by virtue of section 12 (2) (a) mentioned by your reviewer). To stop this loophole the 1951 Act provided that all war damage repairs were to be included in the definition of development. It will be seen that where the General Development Order exemption is in force without cancellation by the local authority there is now (as we have stated) no need to obtain planning permission. In short, the 1951 Act does not override the General Development Order.

A. E. TELLING, F. H. B. LAYFIELD.

London.

N E W S

MOHLG

Operation Rescue

Proposals for halting the gradual deterioration of essentially sound houses are made in a Government White Paper *Houses—the Next Step*,* published last week. The proposals are summarized in a booklet, *Operation Rescue*†.

These proposals will greatly help landlords of the six million houses subject to rent control. As the cost of repairs has increased three-fold since before the war, the Minister of Housing and Local Government suggests that the most equitable method of meeting the increased cost of repairs is the giving of an allowance to landlords based on the valuation of the house that is made for local rating purposes. A fixed percentage increase on the existing rent would be unfair to some. The Minister therefore proposes to allow an annual rent increase equal to twice the statutory deduction, which is the difference between the gross value and the net value for local rating purposes. (This proposal was put forward by the RICS in 1951.) As the Minister believes that some rents are already high enough to give landlords sufficient money for repairs, no rent will be allowed to rise more than twice the existing gross value.

Examples of how these proposals would work are set out in the White Paper. The landlord would not be able to claim the "repair increase" unless the house was in a good state of repair. He would have to show that he had recently spent a sum of money on repairs, equal to three times the statutory deduction in the year prior to the claim, or six times the statutory deduction over a three-year period. A "certificate of disrepair" from the local authority would enable the tenant to refuse to pay the "repairs increase" until the house was repaired.

The Minister proposes that all local authorities should prepare a statement of the number of houses unfit for human habitation in their area and the number that could be pulled down and replaced in a stated time.

Improvements and conversions will be encouraged. Landlords will be allowed an eight per cent. return on such work, instead of the present six per cent. The limit on such work, at present £800, will go, but the maximum grant made by the Government will remain at £400.

Housing Progress

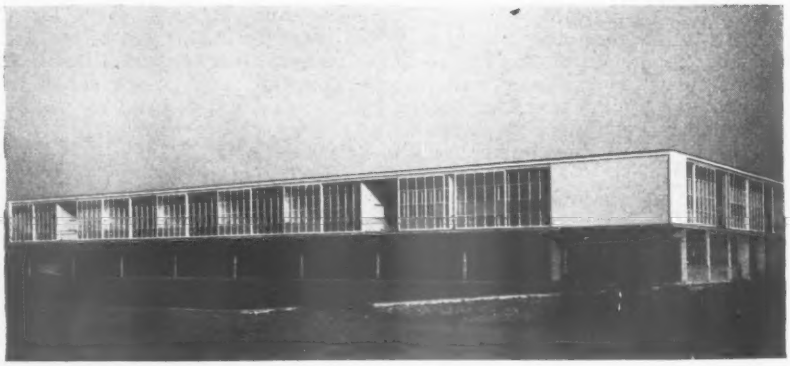
The number of permanent houses and flats completed in Great Britain during September was 28,516 compared with 24,837 in August and 22,323 in September, 1952. In the first nine months of this year 225,863 permanent dwellings were completed, as compared with 171,093 in the same period of 1952, an increase of 32 per cent.

ABT

Architects' Salaries

The value of an architect and town planner to the community is greater than that of the successful lawyer or the director of a brewery, said H. Moncrieff, President of the ABT, in a speech to architects and members of his association at the Caxton Hall, Caxton Street, S.W.1, on Friday, November 6. (*Continued on page* 592)

**Houses—the Next Step.* Cmd. 8996. HMSO. 9d.
†Operation Rescue. HMSO. 3d.



Secondary Schools for Middlesex by Private Architects

The two schools illustrated on this page are part of the Middlesex 1950-51 *programme for three secondary schools. They were designed by private architects in collaboration with C. G. Stillman, the County Architect. The Cranford mixed secondary modern school, above, is for* 540 *pupils. Teaching rooms, with cloakrooms and lavatories, are on the first floor. Staff, dining, changing, art and craft rooms and workshops are on the ground floors. All these rooms are arranged round a central area containing the assembly hall and gymnasia. The reinforced concrete first floor slab is supported on r.c. columns. The light steel frame over supports aluminium decking. Windows*

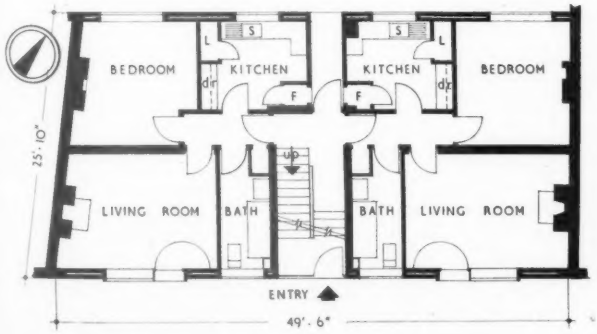
slide sideways. Cost per place £253 *; floor area per place,* 83 *sq. ft. Designed by Denis Clarke Hall. The secondary modern school in Victoria Road, South Ruislip, in which the classroom block, above, is separate from the gymnasium, workshop and dining blocks, accommodates* 680 *pupils. The classrooms, art rooms and laboratories are arranged round four sides of a courtyard on the first floor. The entrance, administration rooms, assembly hall and cloakrooms flank three sides of the courtyard on the ground floor. The classrooms have partial top lighting and are faced externally with oiled cedar. Double glazing is used because of the school's proximity to Northolt airport. Cost per place.* £260 *; floor area per place,* 88 *sq. ft. Designed by F. R. S. Yorke, E. Rosenberg and C. S. Mardall.*

School for Battersea

The Joseph Critton two-form entry primary school, in Linda Street, S.W.11, was designed by Sir John Burnet, Tait and Partners for the LCC. The site is 1·88 acres in area; site coverage, 0·57 acre. Accommodation is provided for 560 pupils, with 54·8 sq. ft. per place. The floor to ceiling height in classrooms is 11 ft. Cost per place, £166. On the left the caretaker's house, centre, the classroom block, right, the kitchen.

Flats in Fulham

Below, four flats in Harbledown Road, S.W.6, which have been built on a bombed site formerly occupied by three terrace houses. Each of the one-bedroom flats is approximately 480 sq. ft. in area, and the four flats cost approximately £5,030. These and six similar flats in the same district were designed by Sir John Burnet, Tait and Partners in association with J. Pritchard Lovell, director of housing and public buildings, of Fulham Borough Council.



Ground floor plan [Scale: ⅛" = 1'0"]

The meeting, which took the form of an Open Forum on Architects' Salaries, was held under the auspices of the ABT. D. A. C. A. Boyne, executive editor of the JOURNAL, was chairman of the meeting, which was held as a result of an article in the JOURNAL by Douglas W. Richardson, on the importance of architects joining an association in an attempt to improve their salaries. Mr. Richardson was one of the speakers.

Mr. Moncrieff pointed out to the meeting the work already being done for architects by the ABT and the virtual impossibility of creating a new association to represent them, without extensive resources to back it. He said that if a principal, a county architect, was worth as much as a top lawyer or a director of a brewery, he ought to be getting a salary five times as big as his present salary. How, he asked, could anyone place the worth of, say, the architect of a new town in terms of what he contributed to human happiness.

"Not only in his own day but for generations," said the speaker, "he creates an environment and to some extent a pattern for living for tens of thousands of people."

Speaking of the young qualified architect, about 27 years of age, Mr. Moncrieff suggested that he was worth nearer £15 a week than £10 a week. And how, he asked, could anyone think of the group leader as less than a £1,000 a year man?

Douglas Richardson said that an association of architects, engineers and surveyors should be established to achieve a just remuneration for members and also to take a keen interest in the prosperity of the building industry. Through such an association members could express their opinions about national building policy. Such an association could be called "The Association of Architects, Engineers and Surveyors."

Later, however, Mr. Richardson made it clear that he was not pressing for the creation of a new association if the ABT could do the job. Some of the members present urged that the name of the ABT should be altered so as to include the word architect.

In the news-letter from Dublin which appeared on page 507 of our issue for October 22 the words Northern Ireland were inserted by mistake in the introduction and in the letter itself.

RIBA

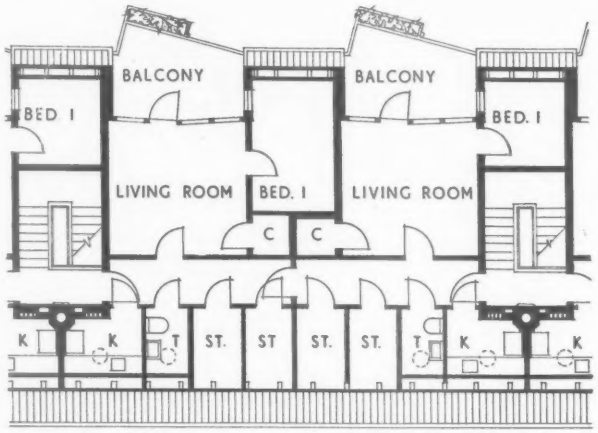
"Erroneous Statements"

It was claimed in a statement issued last week by the Gypsum Building Products Association that there were two items of "erroneous information" in the Memorandum from the RIBA which was published as an appendix to the report of the Bailey Committee. In the Memorandum, it was stated, the Association points out "that plasterboards 'are inclined to shrink'," whereas, the statement continues, "plasterboards are for all practical purposes inert and . . . not inclined to shrink." (BRS give as a typical figure for moisture movement in plasterboard 0·04 per cent., when the humidity is increased from 40 per cent. to 90 per cent. A corresponding figure for fibreboard might be as high as 0·4 per cent., hence the figure for plasterboard is, in fact, "very low.")

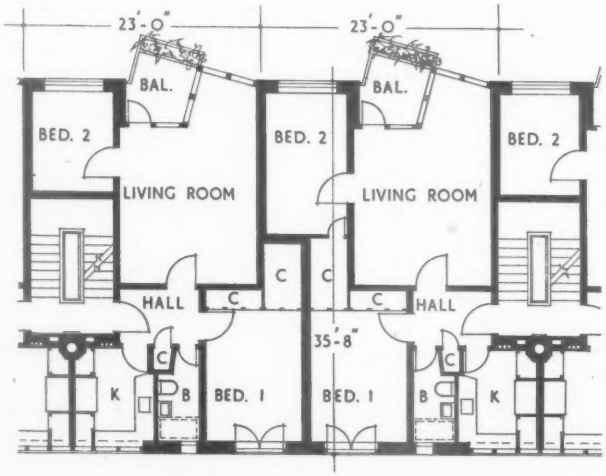
The Association also quotes the RIBA Memorandum as having stated that "ceiling boards are a standard 8 ft. × 4 ft., and although joists can be arranged to work in with these sizes, cutting to waste is

(continued on page 595)

FLATS AT HVIDOVRE, DENMARK



Fourth floor plan



First to third floor plans
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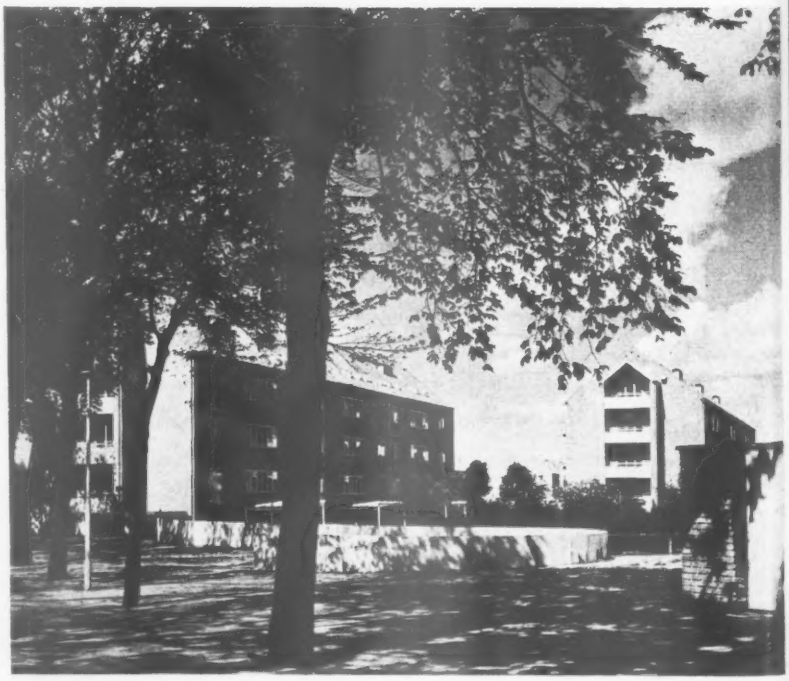
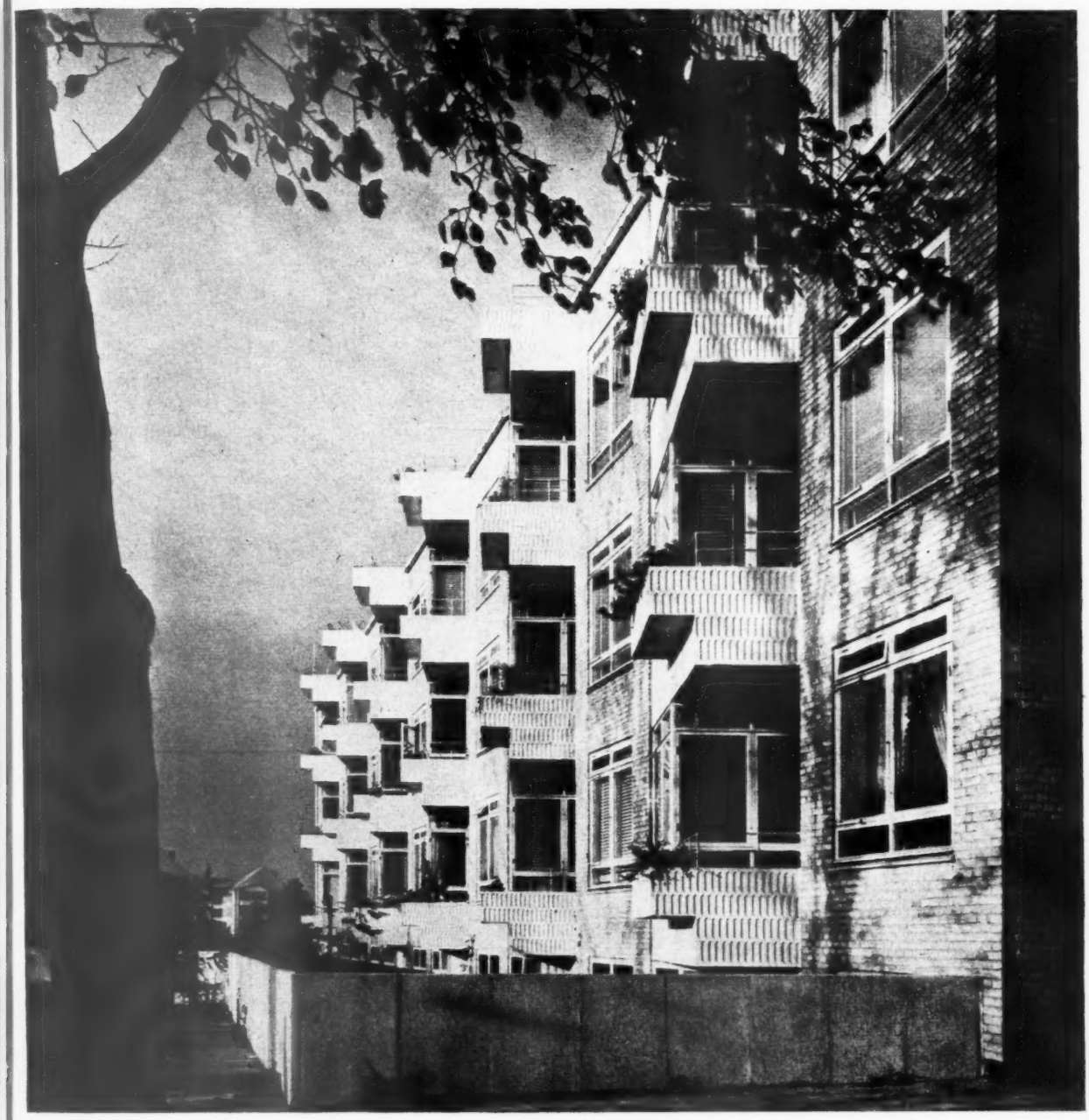
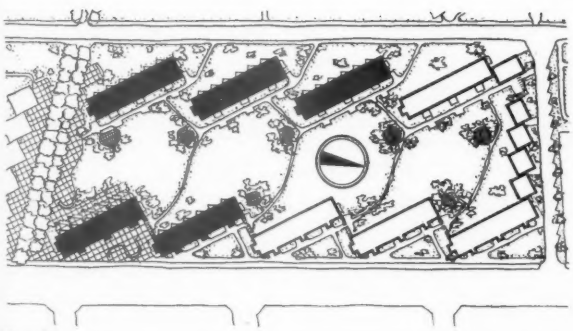




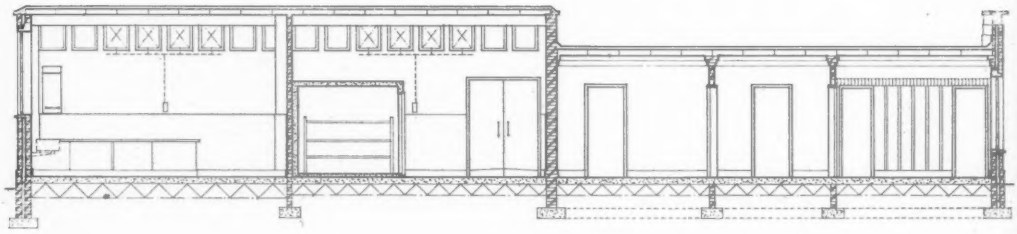


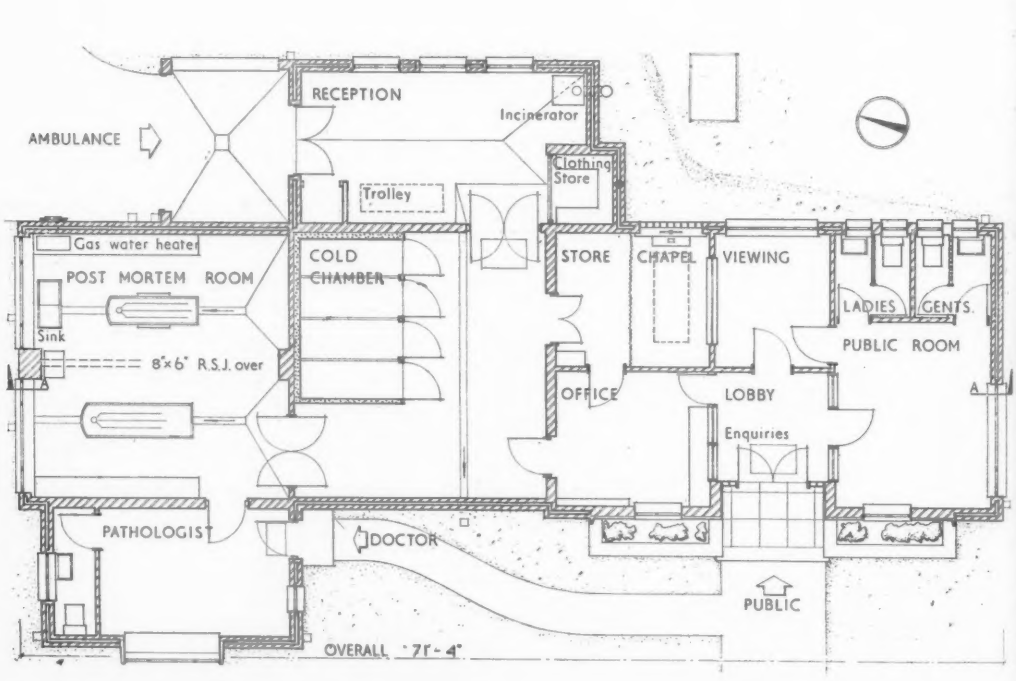
Site plan

The five blocks of flats of the type illustrated here form part of a project for 894 flats and 228 houses at Bredalsparken, in Hvidovre, Denmark. They were designed by Eske Kristensen for the Danish Social Welfare Housing Society. All blocks face south-west and north-east. Each block contains six flats per floor. Flats on the first to third floors have two bedrooms ; those on the fourth floor have one bedroom. All flats have balconies facing south-west. The ground floor is used mainly for storage. Flats are rented at the equivalent of 20s. to 23s. per square metre of floor space annually. When completed the project will include 16 shops, mechanical laundries, hobby rooms, rooms for private entertaining, a day nursery, a kindergarten and a recreation centre.

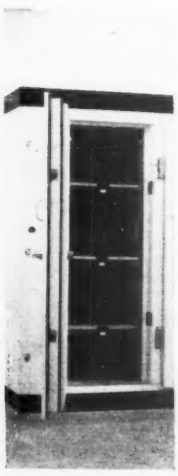
PUBLIC MORTUARY IN KINGSTON LANE, HI

This building for the Uxbridge Urban District Council was designed by H. E. G. Stripp, Engineer, Surveyor and Architect to the Council, A. R. W. Toms, Chief Assistant Architect, and L. G. Beilby, Senior Assistant Architect. The quantity surveyors were A. Boxall and Partners. The photograph, right, is from the south-west, showing the doctors' entrance on the left and the public entrance (also seen in the bottom photograph opposite) centre. Below is one of the four cold chambers, each of which contains three tiers and is used in conjunction with an adjustable stacking trolley. The top photograph, opposite, is of the post-mortem room. The centre photograph is of the covered

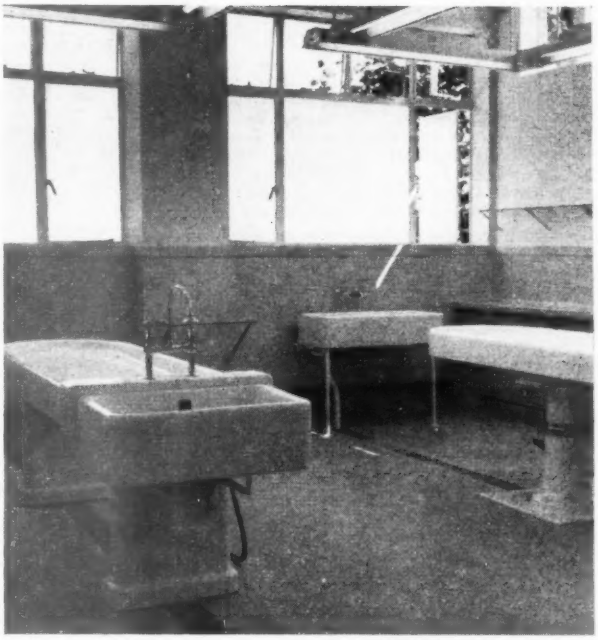


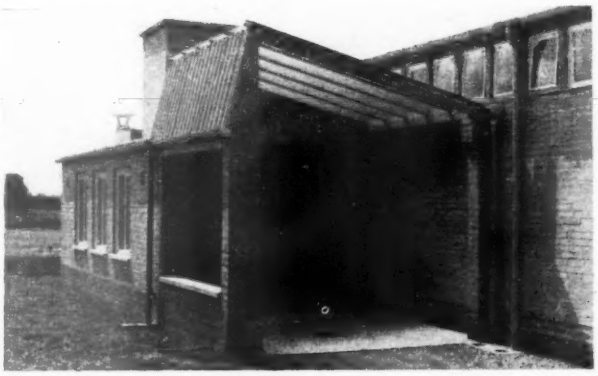


Plan and section A-A [Scale : $\frac{1}{32}$" = 1' 0"]

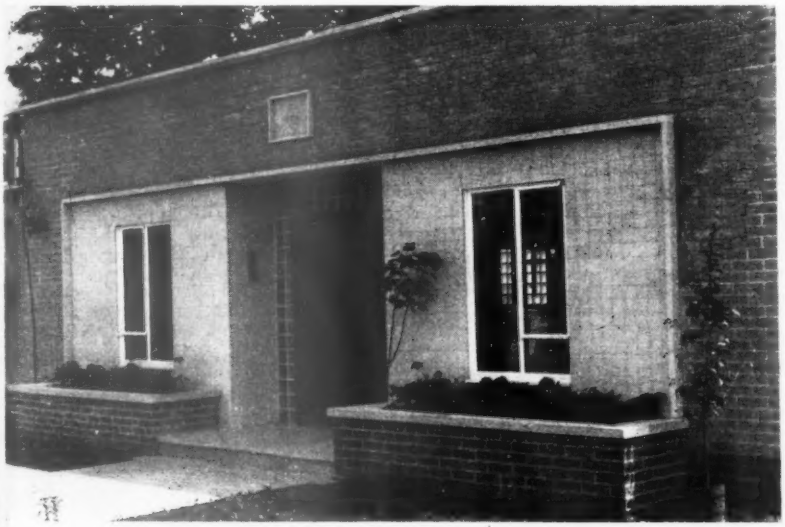


HILLINGDON, MIDDLESEX





yard outside the ambulance entrance on the east facade. The building is divided into three interconnected areas, each with its separate entrance. Firstly, the reception and mortuary area, which has a carriage drive for ambulances, covered yard for unloading, store with incinerator and cold storage; secondly, the pathologists' section; and thirdly, the public section with waiting room, office and a viewing room with window into the chapel. It is hoped that this arrangement, together with the appropriate lighting and hangings, will minimize the shock of identification. The contract price was £8,580. Price per cu. ft., 5s. 9d. and per ft. sq. £4 17s. General contractors, Purser & Co. (Hillingdon), Ltd. Sub-contractors, see page 612.



(continued from page 592)

still inevitable to fit room sizes," and points out that "reference to BS 1230 will show that plasterboards are available in a very large and comprehensive number of standard sizes."

[A letter received by the JOURNAL from a firm of plasterboard manufacturers also draws attention to this, and this firm says that it is prepared, under certain conditions, to manufacture plasterboard 3 ft. 4 in. wide, "for the assistance of architects . . . who are planning buildings on the 3 ft. 4 in. module."]

The RIBA states that, although it is true that plasterboard is *made* in other sizes than 8 ft. by 4 ft., these sizes were difficult to obtain, and it would welcome a statement from the Association saying that other sizes would become more generally available.

AJ

On Sale at the Building Exhibition

Next week's issue of the JOURNAL, which will include notes on over 200 exhibitors' stands and products at the Building Exhibition, Olympia (Nov. 18-Dec. 2), will be available at the Architectural Press stand (355, row T) throughout the exhibition. It will also be possible for exhibition visitors to buy copies of *Specification 1953*, Information Sheets, the *Architectural Review* and all the latest books published by the Architectural Press. (Several of these books will be available for the first time during the coming week.) The Architectural Press stand was designed by Donald Dewar-Mills.

DIARY

Fit to Live In. Unscripted Discussion, by Derek Walker-Smith and F. Elwyn Jones, on BBC Home Service. 9.15 p.m.
NOVEMBER 12

19th Century Working Class Housing. Arthur M. Foyle. Library Group Meeting, at the RIBA, 66, Portland Place, W.1. 6 p.m.
NOVEMBER 16

An Open Air Theatre—Students' Competition. Premiated designs on view at the RIBA, 66, Portland Place, W.1. (Sponsor: Franco British Union of Architects.) First day, from 3.30 p.m.; weekdays, 10 a.m. to 7 p.m.; Saturday, until 5 p.m.
NOVEMBER 17-21

Building Exhibition. At Olympia, Kensington, W.14. Weekdays, 10 a.m. to 8 p.m.
NOVEMBER 18—DECEMBER 2

Contractors' Plant and its Effect on Building Costs. At the Conference Room, Building Exhibition, Olympia, W.14 (Sponsor: RICS.) 6 p.m. NOVEMBER 19

Architecture and the Development Plan. Professor R. Gardner-Medwin. At the TCPA, 28, King Street, W.C.2. (Sponsor: Students' Planning Group.) 6.30 p.m.
NOVEMBER 19

Contemporary Spanish Architecture. Exhibition at the BC, 26, Store Street, W.1. Weekdays, 9.30 a.m. to 5 p.m.; Saturdays, until 1 p.m.
UNTIL NOVEMBER 21

Last week the RIBA's President, Howard Robertson, gave his second inaugural address. The address, which touched on "People's Detailing," professional status, consultants' fees, taxation and the present position of the private architect, is printed—almost in full—below. A comment on part of the speech will be found in the editorial on page 587.

RIBA

Address by the President

TO come straight to the point, I feel that our contemporary buildings for all sorts of purposes risk becoming too much alike in their expression; the same formula for design, employing the same motives, basic forms, and treatment of façade in mass and detail is widely applied to all problems. Of course variations of treatment exist in plenty, and size and bulk play their part. But broadly speaking the buildings for various purposes are getting to resemble each other astonishingly, and so is the work of many architects whose basic thinking is on rational parallel lines. This applies both to the neo-georgians and to the extremists. Each in its category is acquiring the family face. In many achitectural schools the same thing happens, but to a more extreme degree; though of course the neo-georgian trend is, in many of the schools, practically non-existent.

GRANDEUR OF THE PAST

What has happened becomes, I think, more apparent when one looks back at the work of the more distant past, particularly on the spot and not in photographs. There one sees that the best old work reveals immense personality, a character developed in the handling and treatment of form which springs from some deep root of feeling about architectural art. Great daring and technique were often exhibited, and risks were taken that are truly surprising in relation to the methods, materials, and the resources of the epoch. But the technique was not, as a rule, the main spring of inspiration, and was seldom flaunted for its own sake. The designers of those buildings felt something, and felt it deeply. They had a certain grandeur in their approach, even to quite small things. Their sense of response to human emotion seems to have been both natural and acute.

They had something of what a born orator or a preacher possesses—an ability to touch the chords and stir emotions, the sort of basic warmth which is found in the music of the favourite classic composers. Perhaps the gift was there sub-consciously, absorbed from the spirit of the age those people lived in. But, however it came to exist, this ability to make the form and treatment of buildings communicate an emotion, a sensation, has indubitably been present in all great periods. And it is something quite different from the astonishment and wonder of a great engineering enterprise and achievement, although it is in some cases allied to it.

OLD BUILDINGS "SAY SOMETHING"

I believe these great successes of the past move people today in a genuine way, and not merely because the buildings are old. They say something in stone and brick to which people instinctively respond. These buildings very often come to be beloved by anyone ranging from antiquarians to our latest Royal Gold Medallist, who has proclaimed himself at heart a traditionalist.

Clearly there must have been economic troubles in those days as well as now, though perhaps Church and State and the great patrons were willing to stretch a point where our own ministries and local authorities would merely whistle the Treasurer out of his kennel to bite the architect on the leg. In other words, we cannot claim that a certain brittleness, uniformity and desiccation which shows signs of attacking our contemporary architecture are entirely due to lack of funds, though austerity has certainly bred a habit of mind which is comfortably defensible.

Through over-stressing of engineering, false pride in structure, over-anxiety to follow my latest leader, reluctance to draw upon the great and rich vocabulary of form and surface of the past, we risk producing an architecture which will finally cease to attract the public, and will be respected chiefly for its neatness and tidiness—the very qualities which can be found in a well designed mechanism. Fine qualities, but in architecture insufficient.

By and large, people seem always to seek in music a theme, and never cease to love a tune. Let all of us architects remember that. If the young architect can discover what it is that lies at the core of the vitality of the best work of the past and the present, he will be much further advanced than he would by wobbling between the rigidities of Chicago and the latest extravagances from Brazil. The subject is a vast one. It should properly be included in the "Delight" section of a theory treatise. And so, having scattered these thoughts to the winds, I now pass from architecture to architectonics, from the art itself to the system and some of the many things which control our professional life.

PROFESSIONAL STATUS

"Professional." I have used the word automatically. But there are people, important people, who would invite us to quit our professional status and step boldly out into the commercial world. There has been considerable speaking and writing on this subject, and some of you may have read and remembered an able article in *The Economist* of July 25 this year, entitled "The Architect's Dilemma." In this article the writer says that "the idea of the architect as standing between the owner and the builder is a doubtful relevance to the needs of a new age." He also says that "to reassert his leadership, it is held, the architect must again become the master builder, a man with a technical training adequate to make him practical and at home in modern technical developments."

I believe that the first thesis is unsound because it is premised on the idea that this is, in fact, a new age, whereas I think it is only a stage in the usual evolution, accelerated no doubt, but not necessarily demanding the abandonment of fundamental principles which in this particular case are the very basis of our service to the community. Sound principles, in architecture or in business, are established by long experience of trial and error. Attacks on these principles are never dormant. But if we are convinced of their soundness we would be mistaken to abandon them because we thought the world had changed. Superficially it may have; but fundamentally the professional classes have always stood for trust in accordance with inviolable codes. Architects as a bulwark against mal-practice would soon disappear if they tied themselves irrevocably to commercial interests and abandoned their independent status.

This is not to say that the field within which we work should be unduly circumscribed. We should be in a position to render the fullest service to industry and commerce as well as to our normal clients. The means for achieving this, within the framework of our basic principles, is a matter for sympathetic examination individually and by our Institute. If the principle is right, we should be able to find a way, and *The Economist* is justified in suggesting that we must adapt ourselves. But not to the extent of throwing overboard our ethical charter.

THE MASTER BUILDER

On the second point of *The Economist*—the architect becoming again the master builder, the man with the adequate technical training—one might reply that nowadays there is no such person as the master builder. There are impressive firms of contractors, organizations with directors at the top, keen faced men in bowlers half way down, and—at the base—huge teams of men who dig, run miniature railways, and operate the bulldozers and those machines that claw up a whole tree and deposit it just where the architect one moment before was standing. The nearest to the idealized master builder is probably the smaller family concern, or the all-round country builder. But that can hardly be what *The Economist* had in mind.

"Master builders" today are teams of men embracing many departments. The architect is at their service, if they want him. No single man in the master builder's firms knows everything about the job. The strength of such firms, apart from their finance, is the quality of the directors and the employees. These firms are business organizations that build. It is their lifetime job, and it takes all their time. They are not fitted to do architects' work, and they know it. No more can architects do their work. Designing and planning and supervising are one thing, and the great organizations employing labour for erection are another. Only people unfamiliar with what actually occurs, and must occur, in building practice, could confuse the two issues, apart perhaps from the dreamers who are bemused by the lure of the very words "Master Builder" and the visions they conjure up.

To turn to the point of the architect and his adequate technical knowledge the real facts are that no single architect could possibly retain, even if he could absorb, the full range of present day techniques. But the architects, *vis a vis* his client, is a man with a balanced firm behind him. In that architect's house are many architects of varied qualifications. That is where the strength lies, exactly as it does with the builders.

It is perfectly fair to say that an active practising architect today knows as much about technology as any human brain can hold without the risk of stultifying imagination. It is broadly a certainty that excessive factual cramming is a deterrent to creation. And even some of the most imaginative engineers are men who have willingly become a little hazy over detail and calculations. But they have the great ability to spot what is fundamental, and go for first things first. That is what a good architect should do and does, and it is, in fact, the key to the success of many of the greater names in architecture today; namely an ability in certain fundamental directions, the awareness of their own limitations, and the capacity to engage qualified collaborators.

It has been suggested that the answer to highly efficient design and building is early collaboration between architects, builder, engineer and quantity surveyor. I believe this to be true, particularly for large or complicated buildings. At least one public authority is trying out a pilot scheme along these lines, and we will surely find that others will investigate this method, which does not necessarily preclude competition. But I do not believe that the American type of "package service," with everything provided including design, will be the ultimate answer in this country.

SPECIALISTS' CONSULTANTS

Efficient collaboration in all sections of our work is, I am sure, the best answer to efficient design and supervision. Specialist consultants have a great and growing contribution to make, and if they were of no use, they would soon cease to exist. No trade firm can quite replace them, and the fact that they are kept hard at work from beginning to end of complicated jobs shows that for these they are really required. Furthermore, as technology advances, they present the advantage of being able to suggest mixtures of systems of construction and mechanical services which can easily save more than their fees in addition to giving a more economical and much smoother-looking job.

A great deal of work, in terms of money, may be represented by consultants' work in a large contract. A heavy responsibility therefore lies at their door, in the effort to reduce the cost of building by an ever-increasing efficiency and constant regard for the clients' pocket—and here one is assuming that the best consultants need no reminder of this fact.

But the question of arranging employment and payment for consultants is not in every case satisfactorily solved. Our scale provides for it, but clients, particularly public bodies, tot up the total of the professional fees and find them very large. So they often want to dispense with consultants. A commercial firm will be quite willing to pay a very high cost for a pattern or a special design but in individual building it is not sufficiently recognized that a design is often in fact, a prototype and nearly always special. In the vast majority of cases the money spent on fees secures a worthwhile economic service. The question is how to ensure that this axiom be more widely accepted.

Our scale of fees provides in a readily workable way for the remuneration of consultants, and though many minds have considered the possibilities of alternatives, there has been no solution offered which is free from drawbacks.

"ALL-IN" FEES

One suggestion that has been put forward on many occasions is that the architect should be able to quote an all-in fee to include all consultants which the project can justifiably require. Immediately there is a difficulty, in that the fee for all-in service would almost certainly be higher. On the other hand, some business clients might not object to this, provided that it eliminated all those extra additions which one is bound to ask for at present.

Further, there will be certain buildings for which full consultant service is not required, and so another complication would be introduced, namely, a variable in the all-in fee.

The whole thing bristles with difficulties; which is not to say that they are insoluble. One suggestion is that we should consider a scale whereby we classify our work in categories, starting perhaps with simple utilitarian non-fireproof buildings, housing, etc., and passing through two categories such as halls, libraries, simple commercial buildings, schools for higher education and town halls, medical centres and complete industrial buildings respectively to end up with a category of buildings of exceptional character requiring great skill in design and prolonged study in development. In this category one might place, for example, the majority of hospitals.

These various categories would be A, B, C, D, and the architects' fees would be based on the category and the expenditure within that category, or, in other words, fees would be graduated. Any difference of opinion with a client as to category would probably have to be settled by an Institute ruling, transmitted where necessary by an Allied Society. The exact classification of building types might prove to be difficult in practice and yet it would be useless unless it were generally accepted. For the moment one is excluding small domestic buildings and the partial service that may be all that is required for some of them, as being a category probably best dealt with separately.

The basic idea of fees on classification and cost is not wholly new, and I believe that a fee scale along these lines has been recommended by a joint committee of architects of New England, USA. It is always conceivable that fees based in this way on different building types, the service requirements for which can vary widely, might be a practicable and fair basis for arranging an all-in rate, to the satisfaction of the architect, the services consultants, and the clients, with the advantage that all could visualize where they stand without endless arguments about who pays for what. I have touched on this matter of fees as an illustration of the kind of problem which is always in front of the Institute. We have to watch trends and developments, and adjust ourselves to them, and at the same time not make impulsive and drastic changes without being certain where we are going. Which is really to say that basic questions like the scale have to be kept alive and under constant review like all other important matters of Institute policy.

TAXATION

To move now to the purely business side of the profession, the private architect who has to finance his office is greatly handicapped by a system of taxation which makes no provision for ploughing back funds to carry his future commitments. Tax and super-tax are paid in full by each partner, and the available working capital is provided by the back-log of fees still owing. The salaried or official architect does not face this particular brand of anxiety.

It has sometimes been averred that the private architect is at a disadvantage in the service he can render, as compared with his officially-employed brother, in that he does not dare to experiment with new methods and materials. This is true to the extent that if a private architect has a local failure in the one job handed out to him, he may not get another, and prudence suggests that he acts the more cautiously in consequence. The official architect with a large programme can follow up certain lines of research and venture upon a few experiments, since any disappointments are absorbed in the large field of successful buildings. Of course, his responsibilities are very heavy, and his difficulties and frustrations not to be minimized, but at least he has sound finance behind him. If the Tucker Report, or some other enquiry, could make equitable recommendations for the case of the private professional man, one might find that he, too, would take greater risks, more could be spent on research and development, and ultimately a still more skilful service could be rendered.

The increase in the number of salaried and official architects has been fairly steady; they number more than half our membership. But one thing to my mind is certain, namely, that if the private architect were to disappear, the standard of recruiting to big public offices would be adversely affected over the long term. Private architecture is an excellent nursery for young architects, one reason being that responsibility is direct, and the scope extremely varied, while contact with the seniors is in most cases personal and intimate. And the private architect has not only to execute work, he must seek it and find it. That is a very salutary condition for the development of initiative and enterprise, and the young architect who watches a practice develop is truly in touch with the realities of a very competitive world.

In stating this belief, I am in no way decrying service in public office, either as assistant or principal, for such service presents opportunities which are often unrivalled. And we must not fall into the error of neglecting such questions as the general conditions of service of salaried and official architects, as well as their full representation in all Institute affairs. There is little danger of our doing so, though on the surface it may sometimes appear that the problems of the private architect are receiving first priority. This is almost certainly due to a general feeling that the field of private architecture is subject to encroachment from several directions, and at all costs should be cultivated and protected as an excellent training ground and as a necessary complement and stimulus to public service.

To keep private architects alive and flourishing it is, of course, desirable that they should share, to a reasonable extent, in the programmes of the State, especially in times of restriction and control, and tribute has rightly been paid on many occasions to the furtherance of this principle by official architects and the public bodies whom they serve.

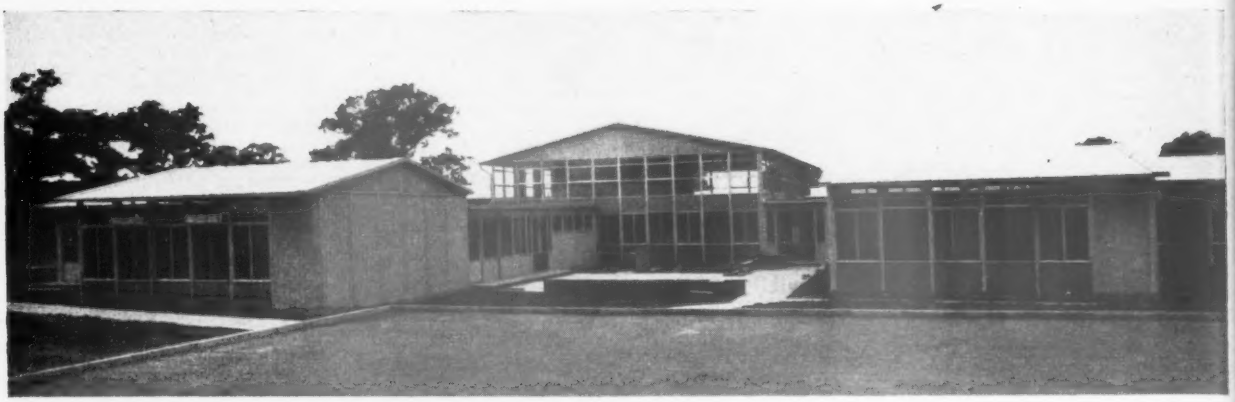
But the private architect has to be active in his own interests, and it is by no means easy for him to bring his talents and service to the notice of his possible clients. The Institute Council, through its recent publications and exhibitions promoted by the Public Relations Committee in particular, has shown itself to be well aware of the need for publicizing the cause of good architecture, and has followed with interest the action taken by such sister bodies as the American Institute which has decided upon a campaign of publicity for the profession which will cost a good deal of money, and is funded by its members.

PUBLICITY

Our conditions here are somewhat different, the great size of the United States requiring special measures. But the interesting fact remains that a greater degree of publicity is considered desirable, and there we are surely in agreement, as our exhibitions and other publicity measures amply demonstrate.

Many of us consider that the soundest bid for popularity is the combination of excellent service at fair rates and buildings whose appeal is founded on a broad basis, buildings agreeable in themselves and mindful of their surroundings even if sometimes at the expense of personal æsthetic convictions.

All architects—salaried, official, private—belong to one architectural world. If I have dwelt at considerable length on certain problems of the private architect it is because he is the man who, at the moment, appears to have the more clouded future. Our profession must remain unified in its devotion to architecture, and all the while all our problems, all the architect's dilemmas, have to be received, studied and solved through the machinery of this Institute. This task involves, I am sure you will agree, most exceptional demands on the human material of our Secretariat. I think you will agree that this material has so far shown not the faintest sign of either fatigue or deterioration. But while it has no moments of inertia, we must not forget that there is such a thing as a limit of elasticity.

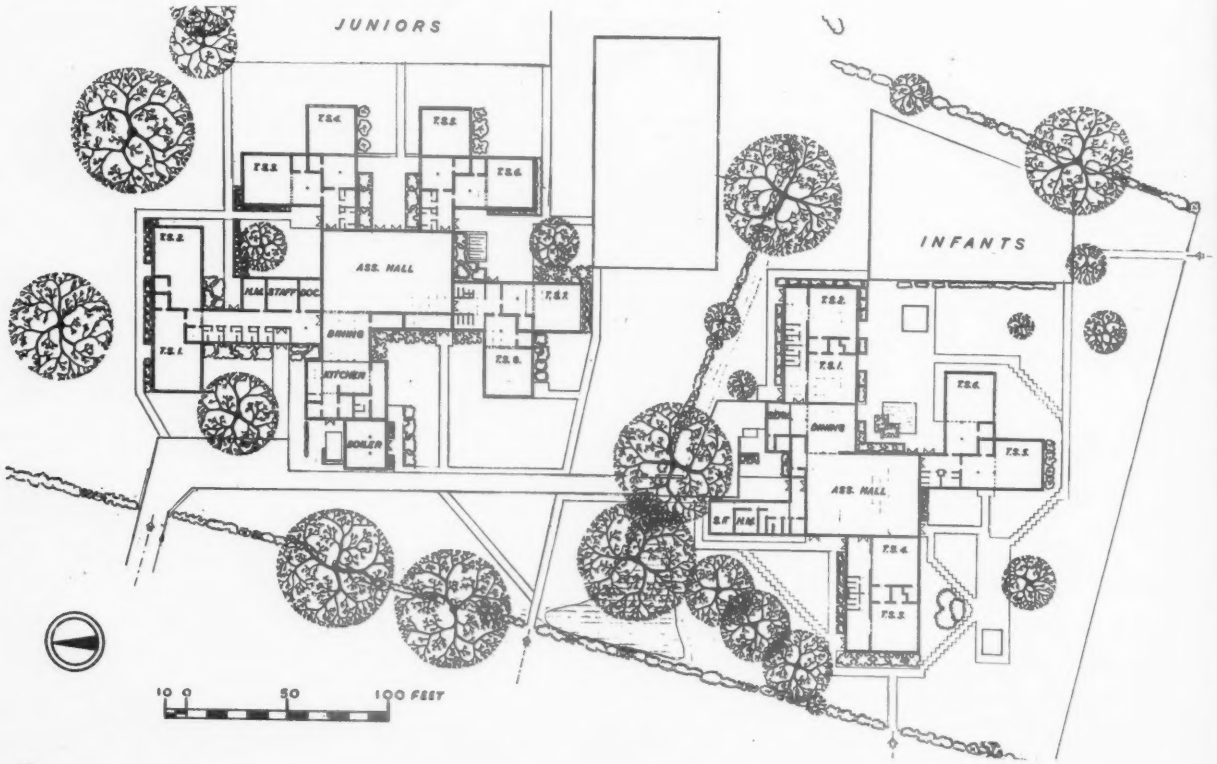


The junior school from the south-east.

PREFABRICATED ALUMINIUM SCHOOLS

Developments at Coventry

The Limbrick Wood County Primary Schools at Coventry were designed after collaboration between the City Architect's and Planning Officer's Department, Coventry, the Development Group of the Architects and Building Branch, Ministry of Education, and the Bristol Aeroplane Company (Weston) Ltd., for whom the consulting architects are Richard Sheppard and Partners. It was agreed that a modified single-storey system of construction, which would enable greater flexibility of design than was obtainable from the B.A.C.'s original system, Mark I, was needed. The new system is known as Mark IA and will be followed by a design by the same team for multi-storey buildings, to be known as B.A.C. Mark II.



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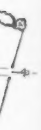

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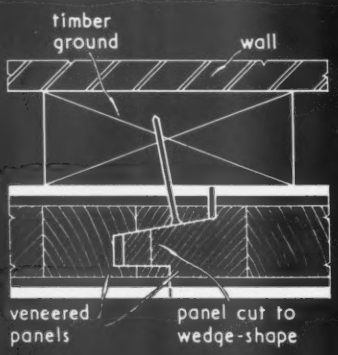
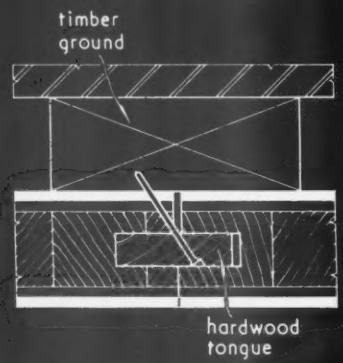
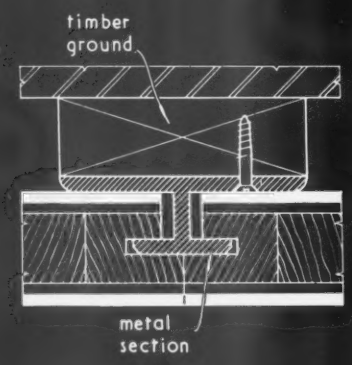
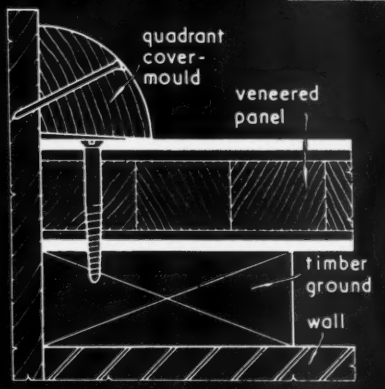






METHODS OF JOINTING.



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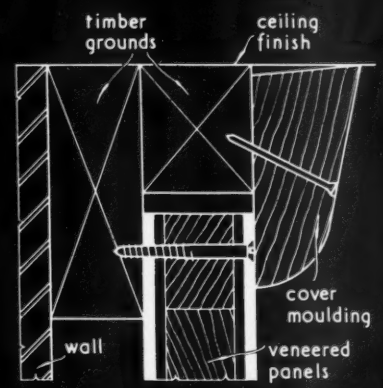

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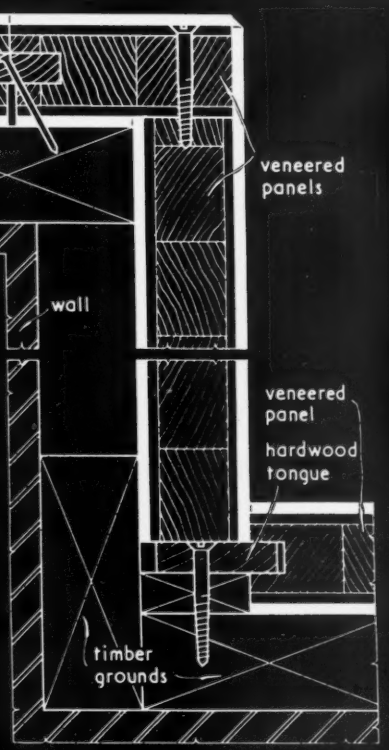
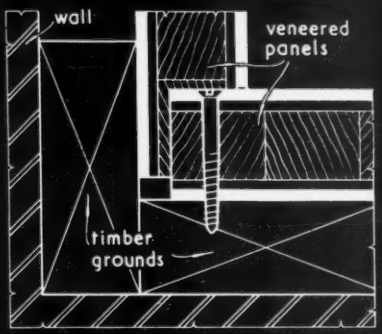
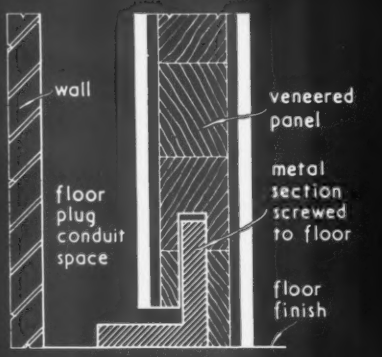
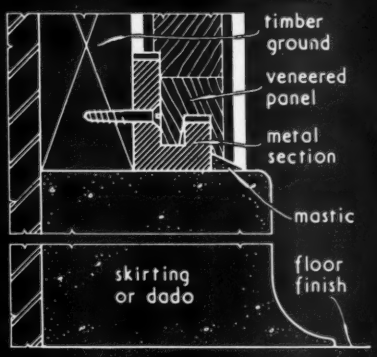
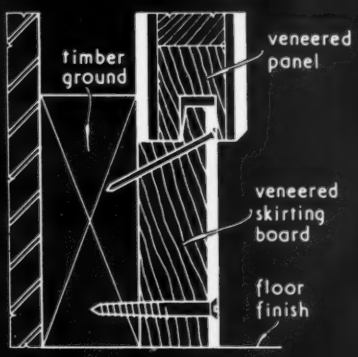




CORNER DETAILS.







ALTERNATIVE TREATMENTS AT FLOOR.

·FORMICA· LAMINATED PLASTICS: VENEERS: APPLICATION TO BOARDS.

Manufacturer: Thomas De La Rue and Co. and Ltd.

15.T6 ·FORMICA· LAMINATED PLASTICS: VENEERS: APPLICATION TO BOARDS

This Sheet is the second of a series dealing with Formica laminated plastics. It describes how plastic veneers may be applied to boards to be used for various types of panelling. Sheet 15.S6 gives a general description of Formica and the forms in which it is available.

General

Formica veneers applied to boards may be used in all situations where a decorative panelling is required that is durable, hygienic, scratch-resistant and unaffected by space heating and by normal acid and alkaline concentrations. Unless the veneered panel is to be secured to a really rigid frame, a counter-veneer must be provided on the back of the board to restrain any movement of that surface.

Construction

Veneer: The $\frac{1}{16}$-in. veneer is suitable for all general purposes, the $\frac{1}{8}$-in. only being used where exceptionally heavy wear is anticipated.

Base material: Plywood, blockboard or chipboard may be used as a base for the veneers. It should be $\frac{3}{4}$ in. or more in thickness and have a smooth surface, free from knots or strong grain markings.

Adhesive: Recommended adhesives are Casco and Certus (casein glues) or Beetle A.2, with hardener, and Aerolite 300 or 306, with GU.X hardener, (synthetic-resin glues). The veneer is rigidly bonded to the base and subjected to an all-over pressure through a flat caul.

Counter-veneer: This may be of inexpensive industrial plastic and may be slightly under the size of the board. It is pinned to the base at each corner to prevent movement during glueing.
Where the use of a rigid frame makes counter-veneering unnecessary, the back of the board must be sealed by painting or varnishing.

Fixing

The drawings on the face of the Sheet gives details of various fixings for the veneered boards.

Jointing: Three methods of jointing are shown. In the first, the edges of the boards are moulded so that the one may easily be nailed to the timber ground and the other wedge-fitted into it. The next detail shows the boards grooved to take a hardwood tongue which is nailed to the ground through one of the boards. The third method makes use of a standard metal section which, fitted into a groove in the first board, is screwed to the ground. With accurately cut tongues and grooves, edges may be left square and sharp to give a hair-line joint. Where such precision is not possible the edge is best slightly bevelled to give a neat dark " vee " joint.

External and internal angles: The drawings at the top right on the face of the Sheet show how external and internal angles may be dealt with. To ensure a good close joint at the external angle, it is advisable to have the corner prefabricated. The internal angle using a hardwood tongue may require packing between panel and grounds to make a good joint.

Architrave: A simple cover-moulding may be used to conceal the joint. A similar treatment may be used at the floor if desired.

Cornice: This masks the top fixing screws and may be of any suitable section.

Treatment at floor: The flush finish shown on the left may be used to advantage when the space behind the floor fixing is required for conduit. The second detail shows treatment of the panel where it stops on a skirting or dado and the third, a recessed veneered skirting.

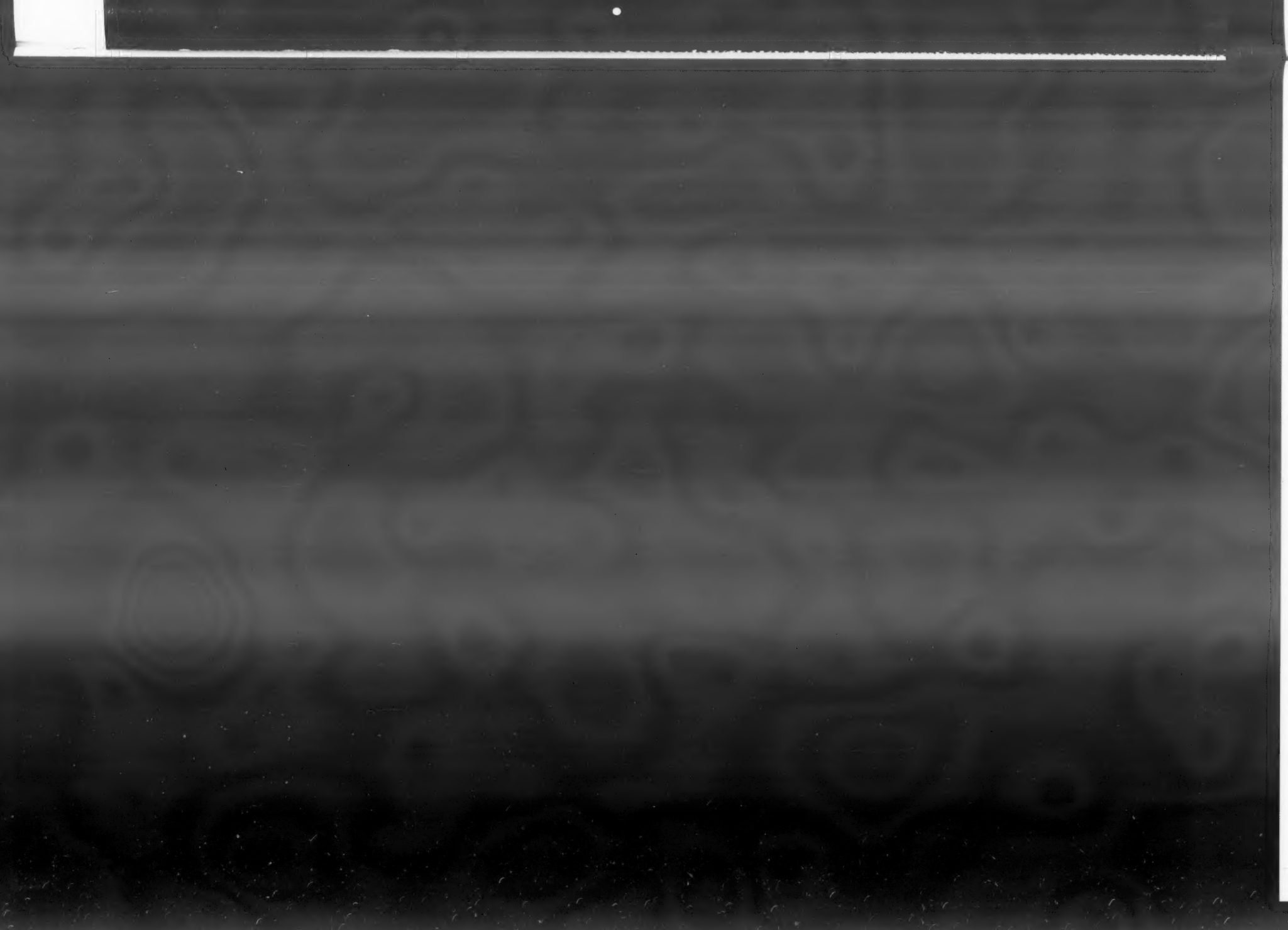
Further Information

The manufacturer maintains a technical advisory department which is available to answer questions and advise on problems relating to this subject generally.

Compiled from information supplied by:

Thomas De La Rue & Co. Ltd.

Address: Plastics Division, Imperial House, 84-86, Regent Street, London, W.1.
Telephone: Regent 2901.
Telegrams: Delinsul, Piccy, London.



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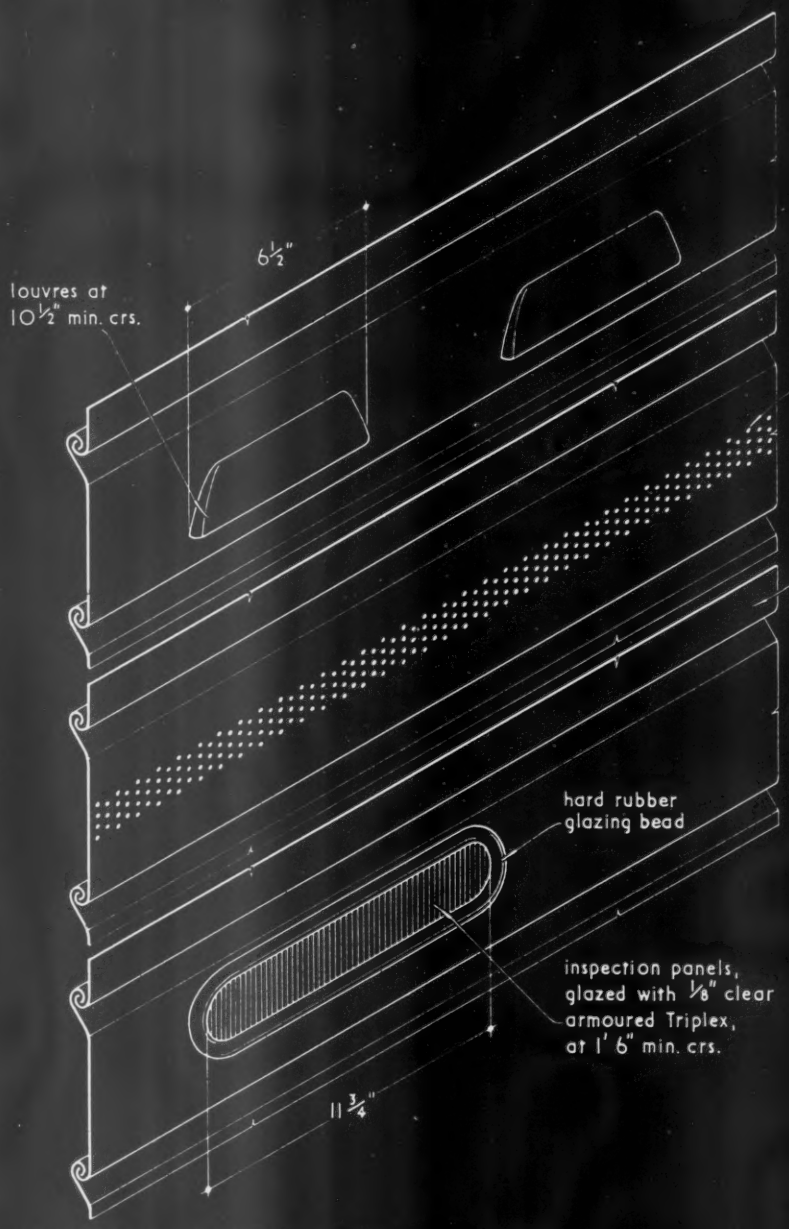
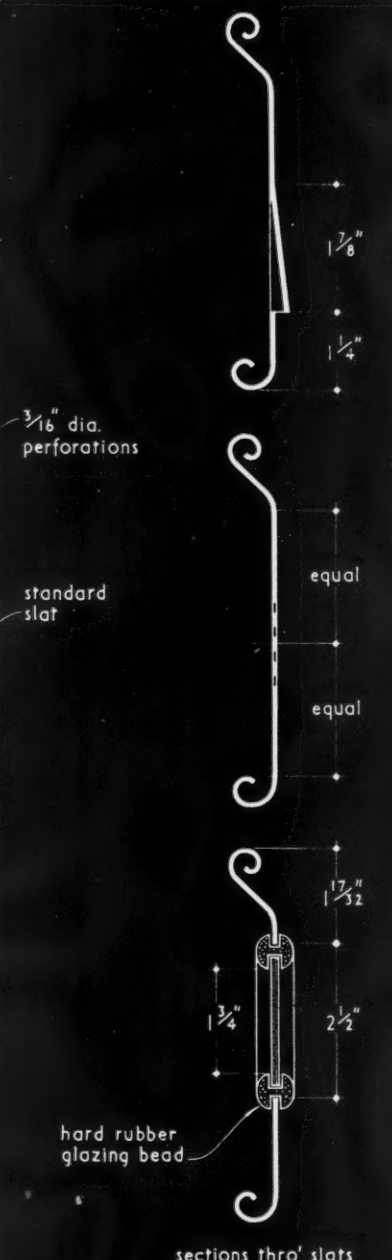
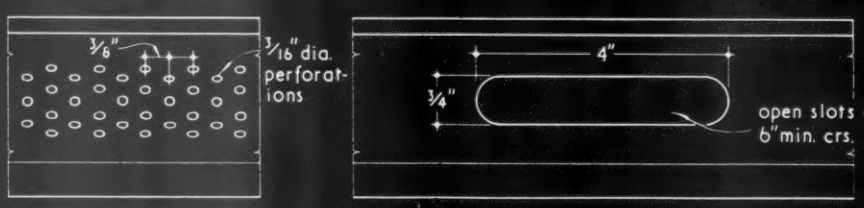




sections thro' slats

SLATS FOR USE WITH ROLADOR SHUTTERS.



note: slots and perforations are not available in no. O Interlocking slats

section thro' slats

SLATS FOR USE WITH INTERLOCKING SHUTTERS.

HASKINS ROLLING SHUTTERS AND GRILLES 6: SLATS FOR LIGHT AND VENTILATION IN ROLADOR AND INTERLOCKING SHUTTERS. Manufacturer: Haskins (E. Pollard and Co. Ltd.)

23.H6 HASKINS ROLLING SHUTTERS AND GRILLES 6: SLATS FOR LIGHT AND VENTILATION IN ROLADOR AND INTERLOCKING SHUTTERS

This Sheet illustrates various special slats for light and ventilation for use with Haskins rolling shutters. They may be substituted for the standard slats, wherever required, in Rolador or Interlocking shutters. General data on the shutters are contained in Sheet 23.H1.

General

The introduction of the special slats shown in the drawings on the face of the Sheet does not in any way affect the coiling of the shutter, since the modifications are carried out on standard slats. The slat itself is not weakened by the openings. These may be used singly or may be repeated at will on each slat, provided always that the minimum spacings for each type of opening are observed; any number of special slats can be inserted in a shutter.
The following is a general description of the standard slats as given in Sheet 23.H2.

Rolador slats: These are constructed from 18 or 14 gauge steel or aluminium alloy and interlock throughout their length to form a continuous hinge. They are made in graduated widths which enable them to interlock round the hexagonal spring assembly at the head.

Interlocking slats: These are of rolled steel strip or aluminium alloy in the following three sizes, but the special slats described on this Sheet are not available in the smallest size :—

No. 0 (" Miniature " section), 1 in. crs., 24 I.S.W.G.
No. 1 (" Small " section), 2 in. crs., 20 or 18 I.S.W.G.
No. 2 (" Medium " section), $2\frac{7}{8}$ in. crs., 20 or 18 I.S.W.G.

Louvres

The louvres in Rolador slats are hooded for weather-proofing but their projection is accommodated in the coiling of the shutter. They are spaced at not less than $10\frac{1}{2}$ in. centres.
The louvres in Interlocking slats are simple slots spaced at not less than 6 in. centres.

Perforations

These are continuous throughout the width of the individual slat on both Rolador and Interlocking shutters.

Glazed Panels

The panels are glazed with $\frac{1}{8}$-in. clear armoured Triplex in a hard rubber bead. Should the glass become damaged it may be easily replaced. The projection of the glazing bead is accommodated in the coiling of the shutter.

This Series of Sheets covers Rolador and Interlocking rolling shutters, Portcullis rolling grilles and timber rolling shutters. Firola fire-resisting rolling shutters are dealt with on Sheet 36.D2.

Compiled from information supplied by :
Haskins (E. Pollard & Co., Ltd.)
Address : Gnome House, Blackhorse Lane, Walthamstow, London, E.17.
Telephone : Larkswood 2622 (6 lines).
Telegrams : Sniksah, Walt, London.

GENERAL

The main objects in the development of Mark IA were: firstly, to produce a versatile system of construction which would allow architects to make use of compact planning; secondly, to improve the details; and thirdly, to reduce the cost of components.

The Primary accommodation illustrated here consists of an Infants' School for 240 places and a Juniors' School for 320 places. It was designed as an experiment in the development of Mark IA.

SITE

The Schools were built on a flat site and the Infants' School is separated from the Juniors' by an existing screen of hedge and trees.

PLANNING

An opportunity was taken to engage in an experiment in planning with the object of reducing circulation space to a minimum and to use as much of the space so saved to increase the areas devoted to teaching.

In each building, classrooms are grouped in pairs about the assembly hall and each pair has its own toilet and washing accommodation.

Each room has a different outlook from its neighbour and a series of small sheltered courts are provided for informal teaching and play activities.

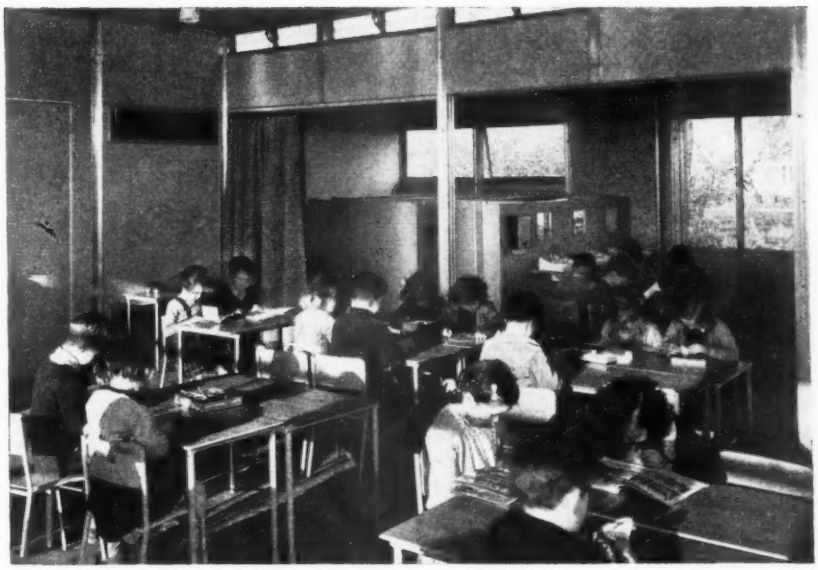
Recent experiments indicate that the scale and the vigour of the physical activities of young children have been underestimated, both in the design of play and exercise equipment and in the space provided for this purpose. It was desired, therefore, that the assembly spaces should be larger than is customary in schools of this kind. It was also required that the classrooms should be so situated that spontaneous dramatic or play activities should be able to spill over from them into the large central space.

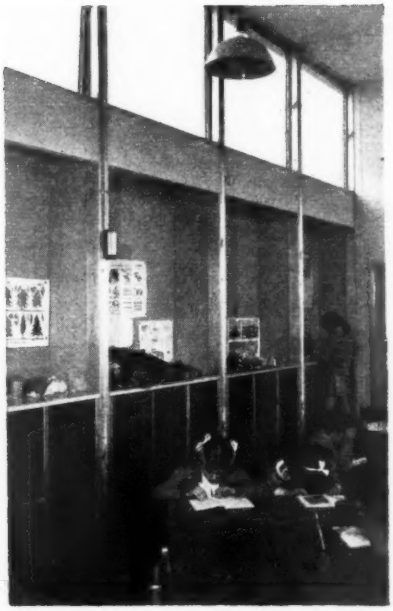
Corridors have been largely eliminated by tight planning and by the use of the assembly space for circulation. Cloakroom equipment has been built on wheels because it has been found that space in cloakrooms is occupied, not so much by the fittings themselves, as by the circulation areas necessary to gain access to the fittings. By making the fittings mobile it is possible to park them more closely in nearby stores and drying rooms during most of the day, thus freeing more space for teaching purposes.

The space saved has added about 250 sq. ft. to each classroom and about 1,700 sq. ft. to the assembly halls.

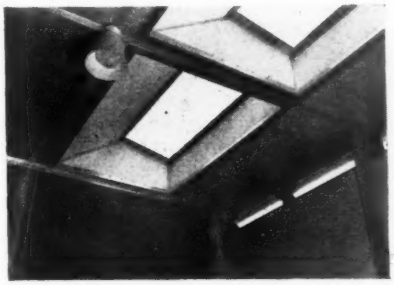
MARK IA CONSTRUCTION

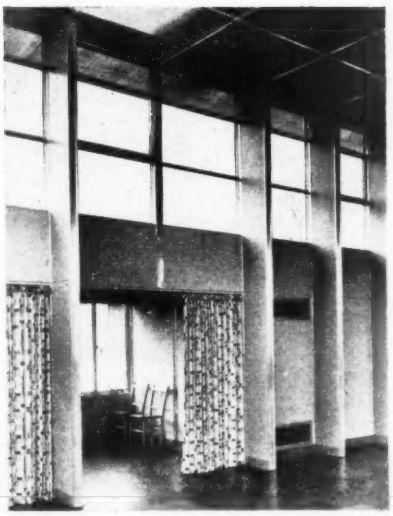
Mark IA introduces a low flat roof covered with bituminous felt for short



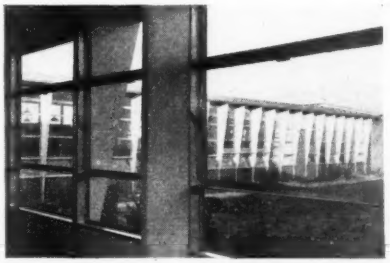


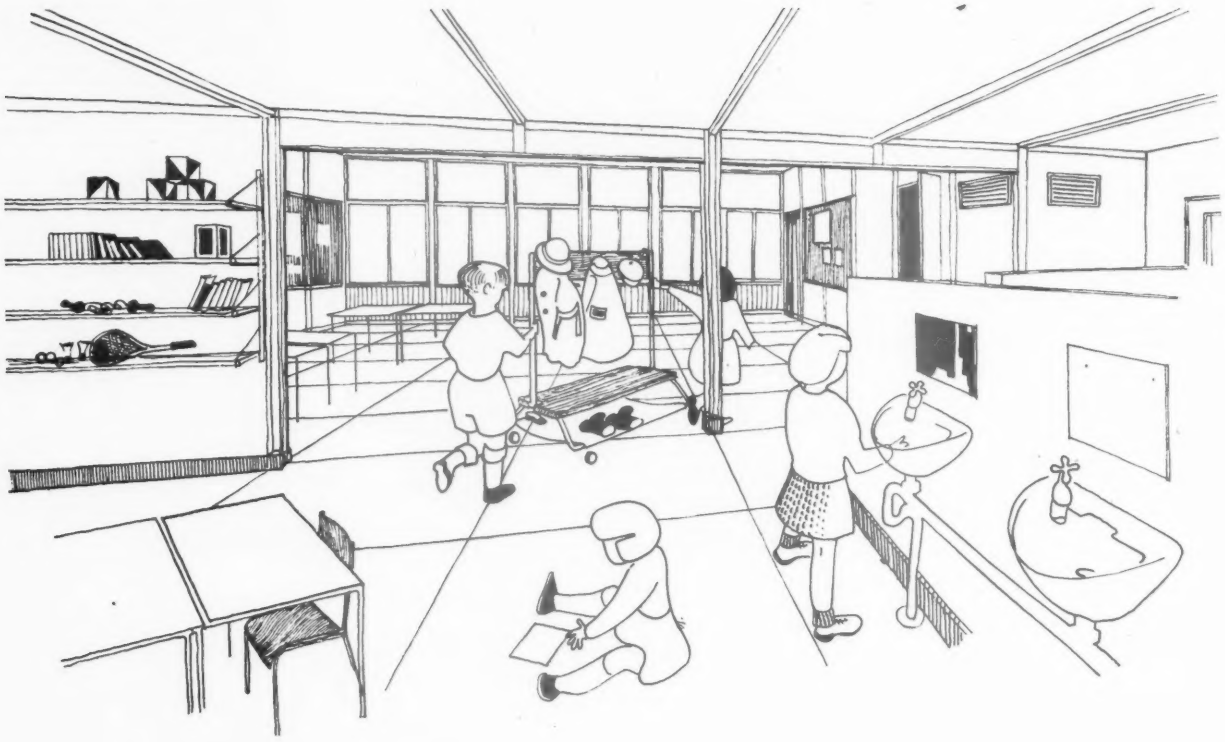
Above, teaching space in the Mk. IA infants' school. Right, clerestory lighting in 12-ft. high Mk. I classroom. Below, top lighting in a 9-ft. high Mk. IA classroom. This top lighting is designed to maintain the daylight and has adjustable ventilators.

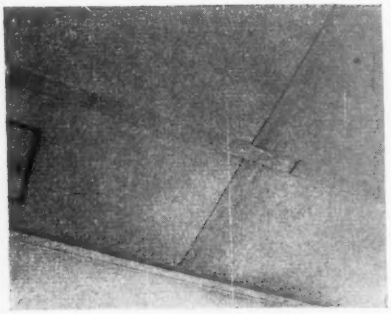


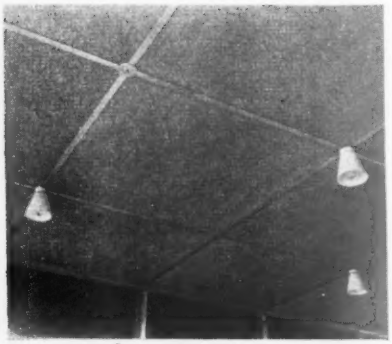


Below, external fins in Mk. I school for wind bracing in a corridor and on teaching space stanchions. Right, these fins have been superseded in Mk. IA by braced internal partitions. These internal buttress units are in the assembly hall.









Top, sketch of activity space and cloak trolley. Centre above, hardboard cover strips at junctions of ceiling panels in Mk. I school. Above, cover strips are replaced by aluminium T's in Mk. IA.

spans of 4 ft., 8 ft., and 12 ft. in place of the Mark I aluminium lean-to roof with a pitch of 1 deg. The new roof avoids the necessity of planning a large number of classrooms in echelon. It allows a greater use of 9 ft. high classrooms where toplights and clerestory ventilators provide the lighting and cross ventilation required by the Building Regulations. Where double-pitch roofs are used there is no change between Mark I and Mark IA; the pitch remains at 10 deg.

Improvements have been made in the design of windows, internal partitions, ceilings and skirtings. The electric cables can now be run in casings and hollow beams and need no longer show on the surfaces of the building.

Accommodation.—The accommodation provided in the Infants' school consists of:—

—	Area sq. ft.	Per cent. of total	Sq. ft. per child
Assembly hall and dining space	3,024	27·9	12·7
Teaching and activity/cloak trolley space	5,360	49·3	22·4
Stores for cloak trolleys, teaching space stores and lavatories	959	8·8	3·9
Administration, staff lavatories and stores	793	7·3	3·3
Servery	234	2·1	0·9
Circulation	496	4·6	2·0
	10,866	100·0	45·2

And for the Juniors' school:—

—	Area sq. ft.	Per cent. of total	Sq. ft. per child
Assembly hall and dining space	3,186	20·4	9·9
Teaching and activity/cloak trolley space	6,836	43·7	21·4
Stores for cloak trolleys, teaching space stores and lavatories	1,273	8·1	3·9
Administration, staff, lavatories and stores	1,182	7·5	3·7
Kitchen	1,145	7·3	3·6
Boiler house	480	3·1	1·5
Circulation	1,560	9·9	4·9
	15,662	100·0	48·9

SERVICES

Electrical.—Braded P.V.C. cable has been used instead of cable in conduit. The infants' school was wired in three weeks.

Heating.—Warm air heating has been employed with thermostatically controlled heater batteries. Calorifiers in each pupils' lavatory provide warm water.

One boiler house with oil-fired boilers serves both schools.

COLOUR

Colour has been used extensively inside the school. Grey Munsell No. 8 has been used generally for hardboard partitions, but the natural colour of the hardboard has in some places been used

in the colour scheme. There are strong colours in spaces other than quiet rooms.

Colour has been applied externally and a mural was designed and painted by the architects.

Time of Erection and Labour.—Because this was a development job, high speed building, which is an inherent characteristic of the system of construction, was not expected. The construction period of the two schools was, nevertheless, considerably below the average for the country as a whole. The starting date was August 1, 1951, and the maintenance period commenced on September 2, 1952. By Christmas, 1951, the General Contractors, Messrs. Gilbert-Ash Ltd., had completed all drainage and both site slabs.

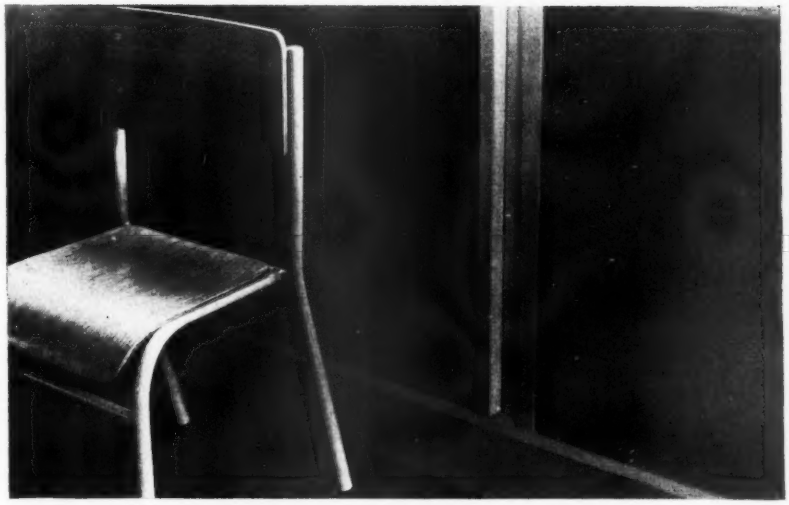
The average labour force during the thirteen months taken to build the two schools was 22 men per day, the General Contractor and Sub-Contractors averaging 17 men per day. The value of work per man/year was £2,975, or £248 per man/month. The area of work done per man/month was 79 sq. ft.

—	Places	Area sq. ft.	Sq. ft. per place
Infants	240	10,866	45·2
Juniors	320	15,662	48·9
Totals	560	26,528	47·3 average

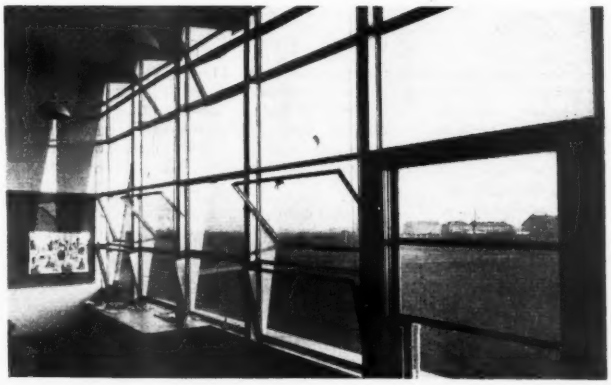
COST.

—	B.A.C.	General contractor	Total
	£	£	£
Infants	16,240	18,838	35,078
Juniors	24,395	23,754	48,149
Totals	40,635	42,592	83,227
Per place	72·56	76·05	148·61
Per sq. ft.	1·53	1·60	3·13

The above analysis is based on the contract figures and represents the gross cost of the schools.



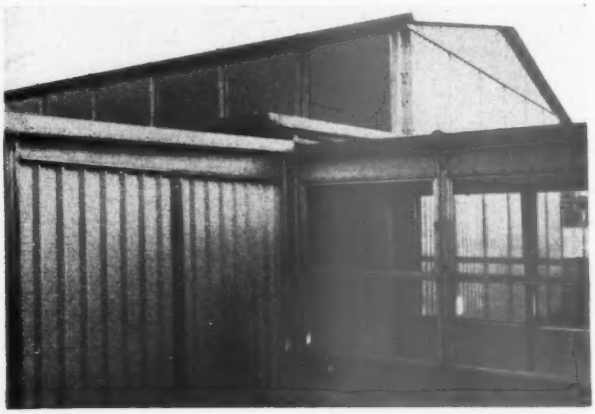
Top, hardwood strips at junction between panels in Mk. I construction. Sheet aluminium skirting is used. Above, Mk.IA, wood skirtings and aluminium covers at module junctions.

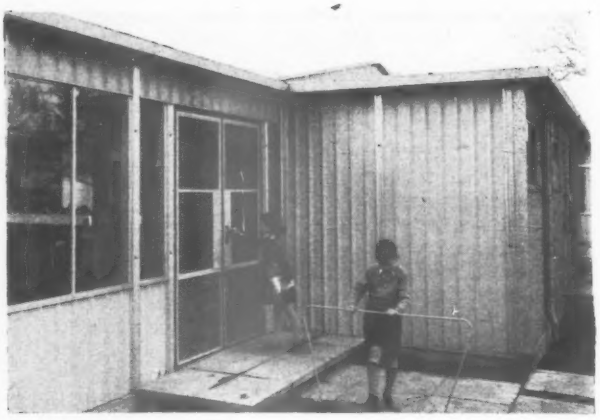


Above, some horizontal centre hung and hopper type windows in Mk. I school. Left, Mk.IA, side hung casements eliminate horizontal members at eye level.

Sub-Contractors. — Space and hot water heating cost £8·84 per place or 3·73s. per sq. ft.

Electrical installation cost £6·47 per place, or 2·73s. per sq. ft.





Top left, roof junction, Mk. I, simplified by use of flat roof in Mk. IA (top right). Above left, electrical conduit in Mk. I corridor. Above, in Mk. IA the hollow beams supporting flat roofs provide space for electric cables. Below, mural on gable wall of junior school.

Below, a model showing the application of the Mark II system to typical secondary school building. Two multi-storey schools in this system have been begun in Coventry. Mark II schools, which are designed to meet the needs of secondary education, have a steel frame and aluminium cladding and are designed on a 4-ft. module. Most of the floor beams are normal r.s.j's and the maximum span is 28-ft. The maximum span for roof beams is 48ft.

TECHNICAL SECTION

About a year ago we expressed considerable concern at the proposed cuts in expenditure allowed for the work of the Building Research Station. From the latest report on the work of the Station,* it is clear that our fears were only too well founded. The so-called " economies " have necessitated a reduction in staff of 57 (i.e., slightly over 10 per cent.), which has resulted in the Station having to abandon, at least for some time to come, its work on sample surveys and on productivity in the building industry. Technical and economic studies of the use of mechanical plant in building operations have been slowed down ; work on the needs of the occupant and on the performance of non-traditional houses has been reduced ; the study of maintenance costs for buildings has been suspended.

In the report, the Building Research Board points out how serious are the results of this curtailment of the work of the Station. Rather than cry " we told you so," we would urge the government to restore these cuts and make it possible for BRS to resume this important work. With everyone appealing for higher productivity in the industry, it seems absurd to hamper one of the industry's best sources of information and ideas.

* *Building Research 1952.* DSIR (HMSO 3s. 6d.)

This week's special article

5 PLANNING: PUBLIC UTILITIES
air transport and town planning

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

As air transport is intensified, it becomes necessary to examine the effect of the consequent noise on town planning. In the following article H. R. Humphreys deals not only with planning in the vicinity of airports, but also with the new problems which are likely to arise when inter-city and airport-to-city helicopter services are established. Little data on this subject have as yet appeared in this country, but several papers have been published recently in the USA and there is no reason to suppose that conditions here will be less difficult.

The assessing of annoyance from noise is extremely difficult; it inevitably leads to hair-splitting arguments. It is possible, however, to define a quantity known as the " speech interference level," which is based on actual measurements and is, therefore, quite objective.

The following table relates speech interference levels (SIL's) to the

subjective effects of these levels and gives a good idea of the corresponding speech conditions.

S.I.L.	*Speech condition*
0–35 db.	Easy to talk.
35–50 db.	Necessary to talk loudly.
50–65 db.	Necessary to shout.
Over 65 db.	Impossible to converse.

It is necessary to examine next what the pattern of SIL's produced out of doors around airfields is likely to be when aircraft are passing overhead. The pattern will, of course, vary with the type of aircraft and, to a lesser extent, with weather conditions and the nature of the surrounding terrain. The latter influence is rather hard to assess and, as the variation due to it is not large, it is ignored in the following data, which can be regarded as illustrating average conditions.

There is no doubt that the latest types of civil aircraft, with their great size and engine power, tend to be much noisier than their forerunners (noisier, that is, to those *outside* the plane—we are not concerned here with noise levels inside aircraft). Measured under certain standard conditions, the overall noise levels for three types of aircraft are as below:

Aircraft	*Overall noise level db.*
i. Twin reciprocating-engined ..	116
ii. Twin-turbo jet-engined ..	125
iii. Pulse jet-engined helicopter ..	128

Of these aircraft, the first and second types are already very familiar and, although the third type is at present little known, it is understood that development of large helicopters with the pulse-jet type of engine is far advanced.

It is now possible (see Fig. 1) to plot the areas of land subjected to certain speech interference levels from any of these types of aircraft, assuming certain take-off conditions. (There may, of course, be a good deal of noise created during landing, but it is seldom more than that made during take-off.)

In the case of normal aircraft, a steady climb at an angle of 5 deg. is assumed, and the zones of SIL are plotted in the form of areas which are elongated extensions of the runway. The first diagram refers to a twin reciprocating-engined plane and the second to a six-turbo, jet-engined one.

To obtain some idea of the "nuisance value" of these noise levels it is necessary to consider the time factor. When a large aircraft passes low over a house, provided it is a fairly rare occurrence, the interest created will usually outweigh easily any nuisance. If, however, this occurs regularly, four or five times an hour, the interest will soon wear off and the nuisance may be rated as considerable. The following table, in which SIL levels are related to nuisance values, is based on four take-offs per hour, 24 hrs. per day. This is believed to be typical of a present-day airport close to a major city.

What the situation will be in 1960 if, as anticipated, there are at London Airport about 70 aircraft movements per hour, it is difficult to assess.

S.I.L.	*Nuisance*
0–35 db.	Negligible (almost no complaints).
35–50 db.	Moderate nuisance (occasional complaints).
50–65 db.	Considerable nuisance (about 25 per cent. may complain).
Above 65 db.	Major nuisance (majority will probably complain).

All the above information relates to noise experienced out-of-doors, but the amount of noise experienced inside buildings is not much less and, if planes are taking-off during normal sleeping hours, the degree of nuisance remains about as great indoors as out.

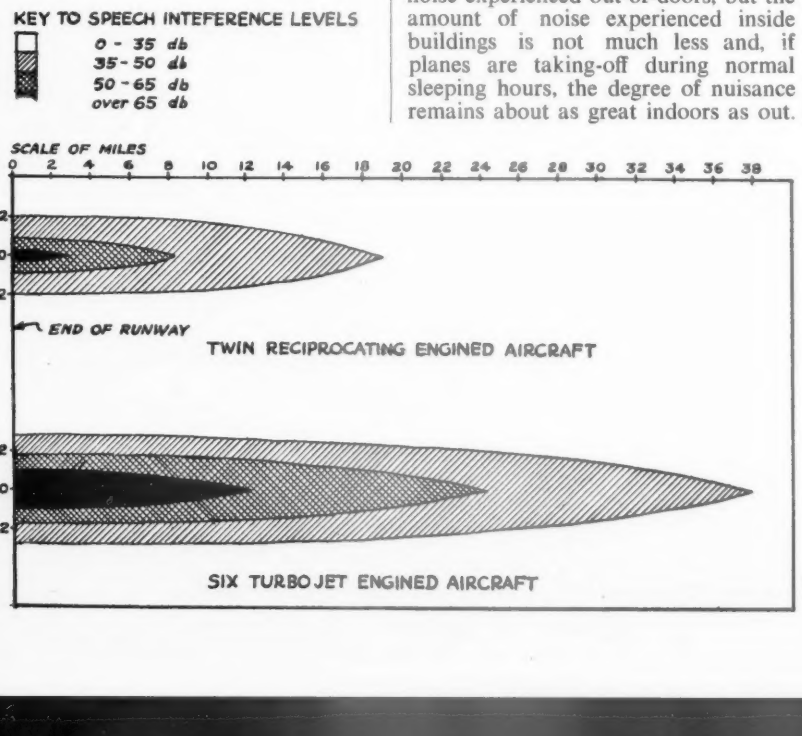
LANDING SPACES FOR HELICOPTERS WITHIN CITY BOUNDARIES

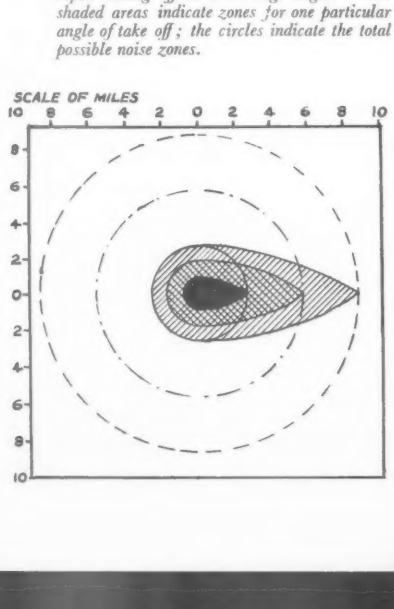
Take-off conditions for helicopters are more complicated than for ordinary aircraft and it is possible that these conditions may change as developments in design take place. At present, helicopters can take-off in a fairly strong wind at an angle of up to 50 deg. (*not* vertically, as is sometimes supposed); in calm weather, this angle may be reduced to as little as 15 deg. Unlike an ordinary aeroplane, which must take-off along a fixed landing strip, a helicopter may, provided there is not a strong wind, take-off in any direction. The pattern of "noise zones" given in Fig. 2 (for a pulse jet-engined helicopter taking-off at an angle of about 20 deg.) is, therefore, circular. The pattern for take-off at one particular angle is shown shaded.

The noise levels indicated in Fig. 2 are those which are to be expected out-of-doors. We are more concerned with noise levels indoors, but these would not normally be much lower and, even allowing for a 15-db. reduction, it is clear that in all offices within 2¾ miles of a helicopter station it would be necessary to shout in order to be heard whenever a pulse-jet helicopter was taking off.

If the landing area were raised 300 ft. above street level, this distance might be reduced to 2½ miles, and if it ever becomes possible for helicopters to take off vertically, the radius of the zone within which shouted conversation would be necessitated would still be one mile.

In some parts of this zone, it would not be possible to understand someone even if they shouted. The worst affected areas would be those normally comparatively quiet, such as rooms on internal wells, around quiet squares or high above street level.





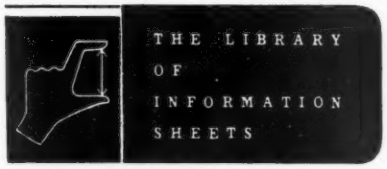
Below left, Fig. 1, sound interference level zones for two types of normal aircraft taking off at a 5 deg. angle. Below, Fig. 2, sound interference levels for a large pulse jet-engined helicopter taking off at a 20 deg. angle. The shaded areas indicate zones for one particular angle of take off; the circles indicate the total possible noise zones.

A HELICOPTER STATION ON THE SOUTH BANK ?

In the light of the above, the recent action of the LCC in postponing their decision as to whether there should be a helicopter station on the South Bank is easy to understand. This decision was based on measurements made by BRS of the amount of noise caused by a small, single-engined helicopter, which presumably is not as noisy as the twin-engined aircraft described above. Even so, the zone in which the SIL is above 65 db. is about one-third of a mile in radius, and it includes a large number of the offices in the County Hall group. No doubt the man in the street would, at present, be more interested to see a helicopter flying over the city than annoyed by the noise it made, but the LCC had to take into account the fact that in 1960 there might be between 30 to 40 helicopters taking off per hour. (This estimate is based on the assumption that at least half the passengers going to and coming from London Airport will use other means of transport, and that the new machines will carry approximately the same number of passengers as an ordinary aeroplane.) The number of "take offs" per hour would, of course, be much higher if inter-city services, such as those which already exist on the continent, were started.

Not only business would be dislocated; the effects on schools, hospitals, theatres, cinemas, etc., would also be most serious. For example, it has been calculated that a pulse-jet helicopter, taking off from any point within one mile of a theatre with a roof giving an average degree of sound insulation, would cause enough noise inside the auditorium to prevent the audience from hearing the actors' lines while the aircraft was approximately overhead.

The Wellsian conception of cities of the future—punctuated by buildings topped with helicopter landing grounds—will remain a fantasy unless substantial reductions can be made in the noise created by these aircraft. Although airline companies are known to be taking some tentative steps towards fixing maximum noise levels for their aircraft, it is doubtful whether the standards they set themselves will be good enough or whether they will be sufficiently vigorously applied.



32.B1. *REFERENCE BACK*

Readers are asked to note the following amendments and to correct their copies of this Information Sheet:

Reverse of Sheet—The ratings of models 65 *M and* 80 *M are now* 55,000 *and* 65,000 *B.Th.U./hr. respectively.*

INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

8.35 surveying: specification

ESTIMATING

Spon's Architects' and Builders' Price Book. Edited by Davis, Belfield and Everest. (E. & F. N. Spon Ltd. 79th edition. 1953. 25s.)

Each edition of this invaluable office reference gets larger—the latest edition, the 79th, contains 719 pp., including the 17-pp. index and the 133 pp. list of names of branded building products. Prices for Measured Work have been reset in larger type, following the style of the Materials Prices introduced last year.

The list of branded names is a new feature; the products are classified, under headings such as Acoustic Materials, Communication Systems, Floorings, Paint, Wallboards, etc.; they are briefly described, and the manufacturer's name, address and telephone number given.

(*Continued on p. 611*)

CURRENT PRICES FOR MEASURED WORK

prepared by Davis, Belfield & Everest, chartered quantity surveyors

Prices are for work executed complete and are for an average job in the London area. All prices include overhead charges and profit for the general contractor. Current prices of materials and rates of wages last appeared in the JOURNAL *for Oct. 29.*

PRELIMINARIES

To all valuations for measured work add for Preliminaries, Water and Insurances, according to the nature of the job (say)		10%

EXCAVATOR

Excavation

N.B.—The following prices are applicable to hand excavation in heavy soil.

Surface digging, 6" deep	per yard super	1/–
Ditto, 12" deep	,,	1/11
Excavating not exceeding 10' 0" deep to reduce levels	per yard cube	7/9
Excavating not exceeding 5' 0" deep to form basement	,,	8/8
Ditto, exceeding 5' 0" and not exceeding 10' 0" deep ditto	,,	12/7
Excavating not exceeding 5' 0" deep to form surface trenches	,,	10/7
Ditto exceeding 5' 0" deep and not exceeding 10' 0" deep ditto	,,	14/6
Excavating not exceeding 5' 0" deep to form basement trench, commencing 10' 0" deep	,,	20/2

EXCAVATOR—(*continued*)

Disposal

Returning, filling and ramming around foundations	per yard cube	3/5
Wheeling excavated soil not exceeding 100 yards and depositing	,,	3/10
Ditto and spreading and levelling	,,	5/–
Ditto, ditto, and consolidating to make up levels under floors and pavings	,,	6/4
Filling into lorries and carting away	,,	12/1

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5' 0" deep	per ft. super	–/6½
Ditto not exceeding 10' 0" deep	,,	–/8
Planking and strutting to sides of surface trenches not exceeding 5' 0" deep (both sides measured)	,,	–/2
Ditto not exceeding 10' 0" deep (ditto)	,,	–/3

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½" coarse aggregate in foundations and masses exceeding 12" thick	per yard cube	66/5
Ditto 1 : 2 : 4 with ¾" coarse aggregate ditto	,,	67/2

CONCRETOR—(*continued*)

Add to Basic Prices for :—

Working around rod or mesh reinforcement	per yard cube	3/10
Being in beds less than 12″ thick (6″-12″)	,,	1/11
Ditto less than 6″ thick (4½″-6″)	,,	5/10
Being in small quantities not exceeding 3′ cube	,,	15/5
Being in suspended floors and roofs	,,	11/7
Being in walls not exceeding 6″ thick	,,	19/4
Ditto exceeding 6″ but not exceeding 12″ thick	,,	13/6
Ditto exceeding 12″ thick	,,	9/8
Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	,,	28/11
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	23/2
Ditto exceeding 144 sq. in. sectional area	,,	19/4
Being in columns not exceeding 72 sq. in. sectional area	,,	36/8
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	28/11
Ditto exceeding 144 sq. in. sectional area	,,	23/2

Formwork

Close boarded formwork and supports to soffites of floors not exceeding 12′ high	per yard super	14/8
Ditto to vertical faces of walls (both sides measured)	,,	14/9
Ditto to sides and soffites of lintols and beams	per foot super	2/2
Add to any of the above for wrot formwork and rubbing down concrete	per yard super	2/6

Reinforcement

⅜″ to 1″ diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	per cwt.	52/6
½″ diameter ditto	,,	56/6
¼″ diameter ditto	,,	69/5
Steel wire mesh fabric reinforcement to B.S. 1221, weighing 4·71 lb. per yard super, well lapped at joints and embedded in concrete	per yard super	3/4
Ditto weighing 9·32 lb. per yard super ditto	,,	6/3

BRICKLAYER

Common Brickwork

		Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)	per yard super	28/8	34/5
Add to the above :—			
If in cement mortar (1 : 3)	,,	–/3	–/3
If circular on plan to flat sweep	,,	4/7	4/11
Ditto to quick sweep	,,	9/1	9/9
Half brick wall in cement lime mortar (1 : 3 : 9)	,,	15/6	18/5
Ditto built fair and pointed both sides with a neat flush joint	,,	17/6	20/5
One brick wall built fair and pointed both sides with a neat flush joint	,,	33/9	39/8
11″ hollow wall with 2″ cavity and galvanized iron twisted ties	,,	33/8	41/6

Engineering Brickwork

		Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)	per yard super	42/4	74/6
Half brick wall in cement mortar (1 : 3)	,,	22/10	39/2
Ditto built fair and pointed both sides with a neat flush joint	,,	24/9	41/9
One brick wall built fair and ditto	,,	46/7	79/3

Sundries

Extra for internal fair face and flush pointing	per yard super	1/1
Horizontal damp-proof course of two courses of slates and bedding and pointing	per foot super	3/7
Ditto of hessian base bitumen well lapped at joints	,,	–/9½
Fixing only metal window, size 1′ 8″ × 4′ 0″, including cutting and pinning lugs to brickwork, bedding frames and pointing in mastic one side	each	7/11
Ditto, 3′ 3″ × 4′ 0″ ditto	,,	12/4
Ditto, 6′ 6″ × 4′ 0 ditto	,,	21/9

BRICKLAYER—(*continued*)

Partitions

		2″	2½″	3″	4″
Clinker concrete solid partition blocks to B.S. 492 and setting in cement mortar	per yard super	7/9	9/–	10/6	12/11
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	,,	8/9	9/7	10/11	–
Moler hollow partition blocks, keyed on both sides and ditto	,,	18/1	19/6	21/–	25/4

Facings

		Ordinary facings, p.c. 239/6 M.	Ordinary facings, p.c. 254/10 M.	White glazed facings p.c. 1,280/– M for stretchers 1,260/-M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c.110/– M for facings as described, and pointing with a neat weathered joint :—				
To solid wall in Flemish bond	per yard super	14/–	15/1	78/6
To cavity wall in stretcher bond	,,	11/5	12/3	62/11
To ditto in Flemish bond with snapped headers	,,	13/7	14/7	—
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint ...	,,	25/10	26/7	—
Ditto pointed both sides	,,	26/10	27/7	—
One brick wall in facings built fair and pointed one side	,,	48/4	49/11	—
Ditto pointed both sides	,,	49/4	50/11	—
Brick on end flat arch in facings 4½″ on soffite and 9″ high and pointing	per foot run	2/11	3/–	—
Brick on edge coping to 9″ wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing	,,	5/–	5/1	—

ASPHALTER

Tanking

		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in three thicknesses on brick or concrete	per yard super	20/6	31/6
Vertical ditto	,,	25/3	35/2

Roofing

		To B.S. 988	To B.S. 1162
¾″ asphalt flat in two thicknesses on and including felt underlay	per yard super	14/8	24/8
½″ asphalt skirting 6″ high with angle fillet at bottom and rounded top, turned into groove	per foot run	2/5	3/–
½″ asphalt fascia 6″ high with solid water check roll at top and undercut drip at bottom	,,	4/6	5/3

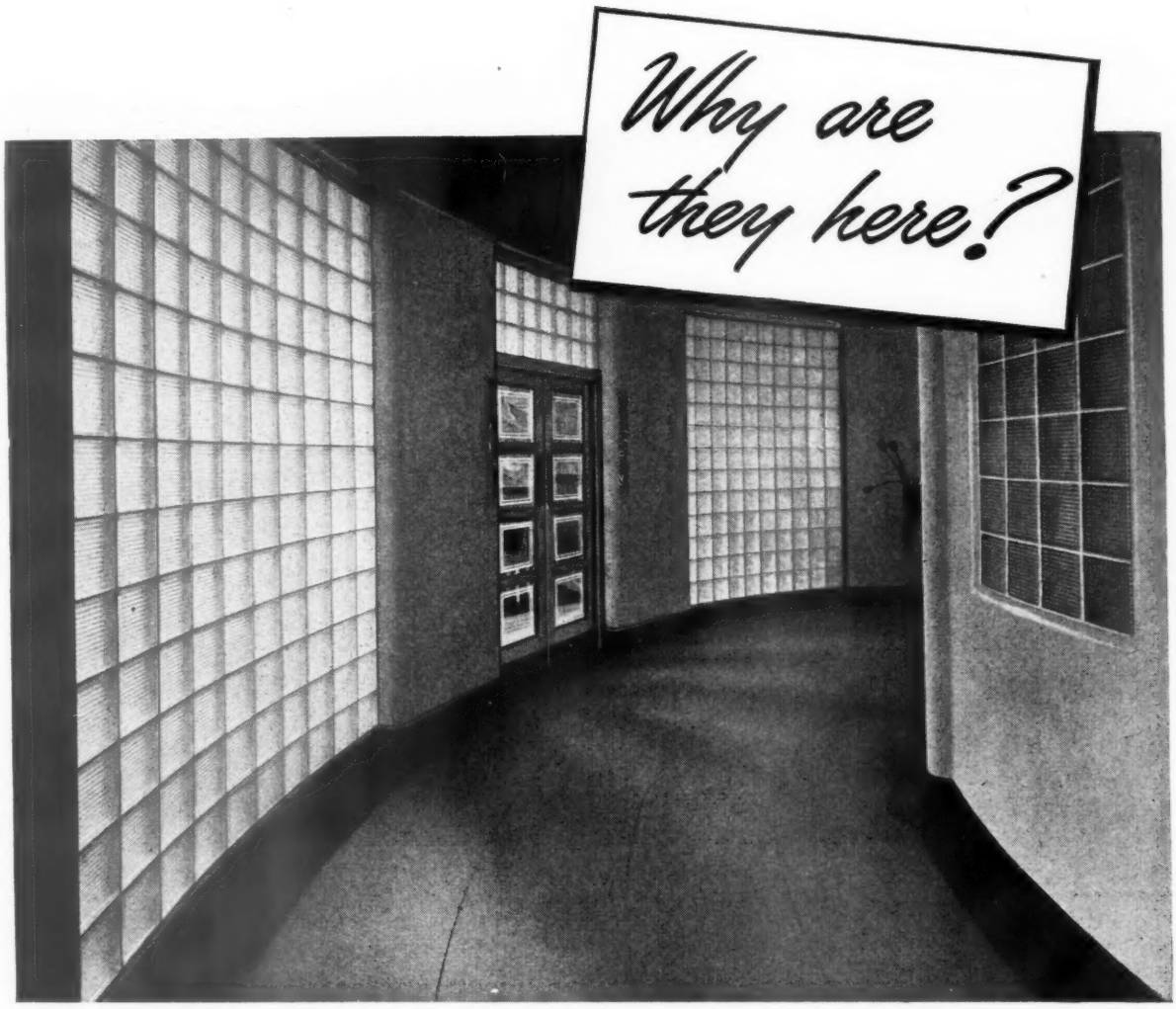
DRAINLAYER

Trenches and Beds

N.B.—The following prices are applicable to hand excavation in heavy soil, only requiring planking and strutting for depths of 3′ or more.

Excavate trenches for 4″-9″ pipes, including planking and strutting, filling in and ramming, and wheeling and spreading surplus :—		
For each 12″ in depth, for trenches not exceeding 3′ 0″ deep	per yard run	3/1
Ditto for trenches exceeding 3′ 0″ and not exceeding 5′ 0″ deep	,,	4/5
Ditto for trenches exceeding 5′ 0″ and not exceeding 10′ 0″ deep	,,	7/2

		4″	6″
6″ concrete (1 : 3 : 6) bed and benching for pipes	per yard run	8/10	10/4
6″ ditto. and surround	,,	14/5	17/5



The Royal Ferry Hotel, New Brighton. Architect: Architects' Dept., Birkenhead Brewery Co., Birkenhead.

"INSULIGHT" HOLLOW GLASS BLOCKS WERE USED BECAUSE . . .

. . . They transmit a pleasantly diffused light from the hotel lounge bar on the left of the corridor without affecting its privacy, and they provide as much thermal insulation as a 9″ Fletton brick wall. Functional and decorative requirements made "INSULIGHT" Hollow Glass Blocks an obvious choice.

The smaller "INSULIGHT" Hollow Glass Block panel on the right carries the "borrowing" process still further, passing light from the corridor to the Reception office behind.

Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6.

Send for the free booklet giving fixing details for "INSULIGHT" Hollow Glass Blocks.

PILKINGTON BROTHERS LIMITED

Supplies are available through the usual trade channels. "INSULIGHT" is the British registered trade mark of Pilkington Brothers Limited

BRITISH GLASS P.B.

HGB.3.

DRAINLAYER—(*continued*)

Drains

		3″	4″	6″
Clayware butt-jointed land drains and laying in trench	per foot run	-/4½	-/5½	-/9½
"Seconds" quality glazed stoneware socketed drains and laying and jointing in trench	,,	4″ 2/1	6″ 2/11	9″ 4/10
"British Standard" quality ditto	,,	2/5	3/6	5/11
Extra on "Seconds" quality for bends	each	3/1	4/8	13/9
Ditto "British Standard" quality ditto	,,	4/-	5/11	17/6
Extra on "Seconds" quality for equal single junction	,,	5/4	7/11	17/2
Ditto "British Standard" quality ditto	,,	7/10	9/9	21/6
Cast iron socketed drains to B.S. 437 and laying and jointing in trench	per foot run	10/11	16/8	32/6
Extra for short radius bend (Fig. No. 4)	each	22/-	43/6	121/5
Extra for single junction (Fig. No. 18)	,,	40/-	76/9	230/-

Fittings, etc.

		4″	6″
Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	each	23/-	42/7
Ditto with vertical inlet ditto	,,	28/6	48/1
Cast iron trapped gulley with high invert, grating, and 4″ outlet and setting in concrete	,,	58/4	—
Ditto with vertical inlet ditto	,,	67/-	—
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	,,	72/4	84/3
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	per foot run	1/10	2/9
Ditto ordinary channel bend and ditto	each	5/6	7/9
Cast iron coated single seal manhole cover and frame to B.S. 407 Grade C and setting frame in cement and cover in grease	,,	24″×18″ 41/5	24″×24″ 61/3
Galvanized ditto	,,	69/6	105/6

PAVIOR

		¾″	1″	1½″
Cement and sand (1 : 3) floated screed to receive pavings	per yard super	3/5	4/1	4/7
Ditto trowelled smooth to receive linoleum	,,	3/9	4/5	4/11
Cement and sand (1 : 3) paving trowelled hard and smooth	,,	3/10	4/6	5/-
Granolithic paving (1 : 2½) laid on concrete	,,	1″ 6/3	1½″ 7/1	1½″ 7/11
½″ red composition paving to B.S. 776 laid on prepared screed	per yard super			16/-
½″ terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	,,			34/2
Extra for white or cream cement	,,			5/3
½″ rubber flooring in all colours, laid on prepared screed	,,			51/-
⅛″ × 12″ × 12″ rubber tile flooring ditto	,,			41/6
⅛″ × 12″ × 12″ cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	per yard super			40/8
1½″ hard red paving bricks p.c. 404/6 per M. laid flat on prepared bed in cement mortar	,,			22/9
1½″ ditto laid herringbone	,,			24/9
6″ × 6″ red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	per yard super		⅝″ 21/5	⅞″ 24/4
6″ × 6″ buff quarry tiles as last	,,		24/10	28/1
2½″ (finished) gravel path laid on prepared bed, well watered and rolled to cambers and falls	,,			2/10

MASON

		Portland	Artificial
Portland stone and all labours in pilasters, and quoins	per foot cube		38/4
Ditto in jambs, lintols, etc.	,,		40/9
Ditto in arches	,,		49/4
Ashlar av. 6½″ on bed with plain dressed face	per foot super		21/10
Portland stone or artificial stone to B.S. 1217 :—			
4½″ × 4″ sill, sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	per foot run	7/5	4/1

MASON—(*continued*)

		Portland	Artificial
9″ × 3″ ditto	per foot run	8/7	6/2
2″ × 12″ Coping, weathered and twice throated, set and jointed as last	,,	7/9	5/6
3″ × 12″ Ditto	,,	10/11	8/2
5″ × 12″ Saddle back coping twice throated, set and jointed as last	,,	17/8	12/6
6″ × 12″ Ditto	,,	20/6	14/1

SLATER, TILER AND ROOFER

Slate

		20″ × 10″	16″ × 10″
Best Bangor slates to B.S. 680 laid with 3″ lap, each slate nailed with two stout copper nails	per square	269/-	243/6
Ditto hung vertically to dormer cheeks and gables	,,	274/-	254/-

Tiles

		Hand made	Machine made
Best sand faced plain (nibbed) tiles to B.S. 402, 10½″×6½″ laid to a 4″ gauge with each tile in every fourth course nailed with galvanized nails	per square	174/10	161/2
Ditto hung vertically to dormer cheeks and gables to 4½″ gauge with each tile nailed with galvanized nails	,,	189/-	178/6
Berkshire hand made sand faced red pantiles 14½″ × 10″ laid to 2½″ head and 1½″ side laps, each tile in every third course nailed with galvanized nails	per square	186/5	
Ditto to mansard slopes	,,	208/5	
Bridgwater hand made Double Roman red sandfaced tiles 16½″ × 14″ laid to 3″ laps, each tile in every course nailed with galvanised nails	,,	134/11	
Concrete plain (nibbed) tiles to B.S. 473, 10½″ × 6″ laid as before described for plain tiles	,,	131/3	
Ditto hung vertically to dormer cheeks, and gables, ditto	,,	153/4	
Concrete interlocking tiles 15″ × 9″ laid to 3″ lap, each tile in every third course nailed with galvanized nails	,,	96/8	
Ditto to mansard slopes ditto	,,	101/10	

Asbestos Cement

6″ corrugated asbestos cement sheeting fixed to wood roofs with galvanized drive screws and washers with a side lap of 1½ corrugations and an end lap of 6″	,,	98/8	
6″ ditto but fixed vertically	,,	109/3	
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	,,	4/9	

Felt

		Two layer	Three layer
Reinforced bituminous roofing felt laid with 3″ laps and nailed to rafters at 18″ centres with galvanized clout nails	,,	22/-	
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	per yard super	8/8	11/6
Extra on last for finishing with granite chippings	,,		-/9½

CARPENTER

Carcassing

Softwood, sawn and fixed, in plates, sleeper joists and lintols	per foot cube	14/7
Ditto in floor and ceiling joists	,,	16/5
Ditto in stud partitions	,,	18/1
Ditto in rafters	,,	17/11
Ditto in purlins and struts	,,	18/1
Ditto and framing in ridge	,,	17/11
Ditto in hip and valley rafters including cutting rafters to sizes	,,	20/1

Battening and Boarding

		Roof slopes	Vertical hanging
¾″ × 1½″ battens nailed to softwood for 20″ × 10″ slates to 8½″ gauge	per square	25/3	27/4
Ditto 16″ × 10″ slates to 6½″ gauge	,,	31/6	33/7
Ditto 10½″ × 6″ tiles to 4″ gauge (4½″ for vertical hanging)	,,	49/4	49/4
		Roof slopes	Mansards
Ditto 14½″ × 10″ pantiles to 12″ gauge	,,	18/5	19/5
Ditto 15″ × 9″ concrete interlocking tiles to 12″ gauge	,,	18/5	19/5
Roof boarding in batten widths close jointed and fixed to flat or sloping roofs	,,	¾″ 108/3	1″ 134/9
Ditto tongued and grooved and prepared for felt roofing including firring to falls		160 8	187/7

CARPEN

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JOINER

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CARPENTER—(*continued*)

		Roof Slopes	Mansards
Sawn gang boarding fixed to joists in roof	per foot super	1/2	1/5½
Wrot and crosstongued eaves soffite	,,	1/11	2/2½
6″ wrot and grooved eaves fascia planted on	per foot run	-/10½	1/-

Wall and Ceiling Boards

		Vertically	Soffites
¼″ fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	per yard super	5/10	6/-
⅛″ asbestos cement flat sheeting to B.S. 690 fixed as last	,,	6/6	6/10
¼″ ditto	,,	7/7	8/-

JOINER

Floors and Skirtings

(All thicknesses stated are nominal)

		⅞″	1″	1¼″
Plain edge softwood flooring in batten widths nailed to floor joists	per square	134/-	149/-	179/6
Tongued and grooved ditto	,,	143/-	159/-	190/6

1″ double grooved and tongued and grooved wood block floor laid herringbone with two-block border, set in hot mastic composition on prepared screed and wax polished :—

Swedish softwood	per yard super	26/3
European beech	,,	33/7
English oak	,,	46/3
European oak	,,	41/-
Burma teak	,,	45/8

		Sectional area 3″ to 6″	Over 6″
Softwood skirtings with splayed or molded top edge, planted on (per inch sectional area)	per foot run	-/2¾	-/2½
Extra for grounds plugged to brickwork	,,	-/8	

Windows in Softwood

		1½″	2″
Rebated and molded softwood fanlights and casement sashes divided into squares for glass	per foot super	3/1	3/4½
Extra for hanging	each	6/9	6/9
Cased frames with 6″ × 3″ oak sill and 2″ molded double hung sashes including pulleys, line and weights	per foot super	—	10/1

N.B.—The above prices are for purpose made joinery. Standard pattern casement windows and double hung sashes and frames to B.S. 644 are cheaper.

Doors in Softwood

		1½″	1¾″	2″
Framed ledged and braced doors filled in with 1″ T. & G. and V-jointed boarding and hanging	per foot super	6/4	7/-	7/-
Four-panel door, square both sides and hanging	,,	5/3	5/11	5/11
Ditto molded one side	,,	5/9	6/6	6/6
Ditto molded both sides	,,	6/4	7/-	7/-

N.B.—The above prices are for purpose made doors. Standard panelled doors to B.S. 459 are cheaper.

1¾″ standard flush doors 2′ 6″ × 6′ 6″ internal pattern	each	118/6
2″ ditto external pattern	,,	127/-

Linings, Frames, etc., in Softwood

		Sectional area Up to 6″	6″ to 12″
Window and door linings etc. (per inch in sectional area)	per foot run	-/4	-/3½
Frames wrot all round and framed (ditto)	,,	-/3	-/2¾
Mullions, transomes and cills (ditto)....	,,	-/3½	-/3
		2″ to 4″	4″ to 6″
Moldings, architraves, etc. (ditto)	,,	-/3¾	-/3½
		Thickness 1″	1½″
6″ Window boards with rounded nosings, tongued at back and including bearers	,,	3/2½	3/5
9″ Ditto	,,	3/6½	3/10

Shelving and Fittings in Softwood

		¾″	1″
Shelving of 2″ slats spaced 1″ apart on bearers (measured separately)	per foot super	2/8½	3/-
Shelving on ditto	,,	2/5½	3/0½
Cross tongued shelving on ditto	,,	3/1	3/8
Shelving 9″ wide on ditto	per foot run	1/9	2/1½
2″ shelf bearers plugged to walls	,,	1/0½	1/2½

The following in framed up cupboard fittings :—

T. & G. & V-jointed back	per foot super	2/1½	2/6
Cross tongued top, bottom shelf or division	,,	3/2	3/8½
1¼″ flush cupboard doors	,,	7/3	
Labour rebate or groove	per foot run	-/3½	

JOINER—(*continued*)

Labour cross-grain	per foot run	-/4½
1″ × 2″ bearers screwed on	,,	-/6

N.B.—The above prices are for purpose-made cupboard fittings Standard pattern kitchen fittings to B.S. 1195 are cheaper.

IRONMONGERY

		Softwood	Hardwood
3″ steel butts (medium quality)	per pair	4/11	6/1
4″ ditto (ditto)	,,	6/8	8/-
Double action floor springs and top centres including filling boxes with oil P.C. 149/3	each	181/6	187/4
Overhead check action door springs. P.C. 66/8	,,	84/3	87/10
6″ barrel bolts. P.C. 5/6	,,	7/8	8/2
Cupboard locks. P.C. 8/2	,,	12/3	13/4
Norfolk latches. P.C. 5/6	,,	10/5	11/10
Cylinder night latch. P.C. 15/11	,,	22/11	24/9
Mortice latch. P.C. 9/4	,,	14/8	16/1
Rim lock. P.C. 10/-	,,	14/3	15/4
Mortice lock. P.C. 15/2	,,	22/1	23/11
Door furniture. P.C. 24/-	per set	27/6	27/10
Sash fasteners. P.C. 9/-	each	11/8	12/3
Casement fasteners. P.C. 7/11	,,	10/-	10/5
Casement stays. P.C. 11/6	,,	14/-	14/4

STEEL AND IRONWORKER

Structural Steelwork

The following prices are for Basic sections only. Prices for other sections vary roughly in proportion to the price of the steel ex mills—see "Current Market Prices of Materials."

		£	s.	d.
R.S.J.—in steel framed structures hoisted and fixed complete	per ton	58	3	3
Riveted compound girders including plates and rivets	,,	64	0	0
R.S. stanchions including caps bases, cleats, etc	,,	66	16	0
Riveted compound stanchions ditto	,,	69	15	6
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30′ span	,,	103	7	6
Ditto 40′ span	,,	95	0	0

Sundries

Simple wrot iron balustrades fixed complete (excluding mortices etc.)	per cwt.	11	10	6
Bolts with heads, nuts and washers and fixing	,,	11	1	9

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffites	per yard super	5/1

Lime and Gypsum Plaster

		Lime	"Sirapite"
Three coat lime and two coat "Sirapite" or similar gypsum plaster :—			
On brick walls and partitions	per yard super	5/11	4/8
On concrete soffites including hacking	,,	7/3	6/7½
On soffite of E.M.L. (measured separately)	,,	6/-	7/2½
On and including wood laths, to soffites	,,	12/-	—
⅜″ Gypsum plasterboard fixed to softwood soffites, in accordance with manufacturer's instructions, scrimmed and finished with setting coat of suitable plaster	per yard super	7/5	
Plaster moulded cornice or cove (per inch in girth)	per foot run	-/4½	

Cement Rendering

Rendering in Portland cement lime sand(1:1:6) and setting in Keenes cement on brick walls and partitions	per yard super	5/9
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	,,	5/3
Portland cement and sand (1 : 3) screed for tiling on ditto	,,	2/9½

Wall Tiler

6″ × 6″ × ¼″ standard quality white glazed wall tiles set and jointed on prepared screed	per yard super	38/10
Ditto eggshell matt or glossy glazed enamelled	,,	48/10

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

		Flats	Gutters, flashings, etc.	Stepped flashings
Milled sheet lead and labour	per cwt.	197/6	197/6	206/6

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER—(*continued*)

		Flats	Gutters, flashings, etc.	Stepped flashings
24 S.W.G. sheet copper and labour	per foot super	5/3	5/7	5/9
23 S.W.G. sheet copper and labour	,,	5/8	6/-	6/3
14 gauge zinc and labour	,,	2/1	2/4	2/7

Rainwater Pipes and Gutters

		3"		4"	
Cast iron medium section (1/16" metal) R.W. pipes and jointing and fixing to walls with pipe nails and distance pieces or holderbats (cutting and pinning holderbats measured separately)	per foot run	With holderbats 5/-	With nails 4/-	With holderbats 6/-	With nails 5/-
Pressed steel R.W. pipes and ditto	,,	24 G. 3/11	3/4	20 G. 5/6	4/10
Asbestos cement R.W. pipes and ditto	,,	3/-	—	3/8	—
		4"		6"	
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	,,	1/2" 2/9	3/16" 3/1	1/2" 4/1	3/16" 4/10
Ditto O.G. ditto	,,	3/1	3/11	4/7	6/-
18 Gauge pressed steel half round ditto	,,	2/8		3/8	
Ditto O.G. ditto	,,	3/2		4/4	
Asbestos cement half round ditto	,,	2/4		3/9½	

Soil and Ventilating Pipes

		3"	4"
Lead soil, waste and ventilating pipes (17 lb. per yard for 3" and 22·8 lb. per yard for 4" diameter) fixed to walls with lead tacks and brass screws	per foot run	11/2	15/5

		Heavy 11/16"	Medium 3/16"	Heavy 11/16"	Medium 3/16"
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	,,	5/2	4/9	6/7	6/6

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

		½" lb.	¾" lb.	1" lb.	1¼" lb.
Supply		7	11	16	21
Distributing		6	9	12·5	16
Flushing and overflow		3	5	7	9
Waste and ventilating		—	—	—	7

		½"	¾"	1"	1¼"
Supply pipe in trench (measured separately)	per foot run	3/9	5/8	8/1	10/8
Ditto fixed to walls and ceilings	,,	4/2	6/3	8/11	11/9
Distributing pipe fixed to walls and ceilings	,,	3/9	5/5	7/4	9/6
Flushing and overflow pipe ditto	,,	2/4	3/8	4/10	6/4
Waste and ventilating pipe ditto	,,	—	—	—	5/6
Joints to fittings	each	4/8	5/6	5/9	6/5
Bends	,,	—	—	—	1/11
Branch joints	,,	6/-	7/-	7/5	8/8

Steel Tubes and Fittings

Galvanized steel tubes to B.S. 1387 Class C with screwed joints in red lead as supply pipe laid in trench (measured separately)	per foot run	1/11	2/4½	2/7	3/3
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	,,	1/11	2/3	2/5½	3/-
Joints to fittings	each	3/8	4/2½	5/1	6/1½
Bends	,,	—	—	3/2	4/7
Tee, equal or reducing	,,	2/2	2/6½	3/1	4/-

Copper Tubes and Fittings

Prices are based upon the following gauges :—

		½"	¾"	1"	1¼"
Supply		18	17	16	16
Distributing, waste, etc.		19	19	18	18
Copper tubes to B.S. 1386, as supply pipe laid in trench (couplings and trench measured separately)	per foot run	1/9	2/7	3/6	4/7
Ditto to B.S. 659 as distributing, waste pipes, etc. fixed to walls and ceilings. Couplings measured separately	,,	1/9½	2/3½	3/1	3/8½

INTERNAL PLUMBER—(*continued*)

		½"	¾"	1"	1¼"
Brass compression type couplings—copper to copper	each	4/4½	5/-	6/10	8/10
Ditto bends	,,	5/8	6/7	8/4	11/10
Ditto tees	,,	7/4	8/5	12/7	18/-

Sanitary Fittings

		£ s. d
Fireclay sinks 24" × 18" × 10" including cutting and pinning brackets to tiled wall. P.C. 75/-	each	4 16 0
Combined metal sink and drainer 42" × 18" × 8½" to bearers (measured separately). P.C. 330/-	,,	18 11 9
Fireclay lavatory basin 25" × 18" with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 138/6	,,	8 5 0
Rectangular cast iron porcelain enamelled bath 5' 6" long, with taps, and panels to side and one end fixed to framing (measured separately) P.C. 390/6	,,	23 9 3
Fireclay w.c. pan with trap, plastic seat, high level cistern and flush pipe, including screwing pan to floor and cistern brackets to backboard. P.C. 200/-	,,	12 12 3
Ditto with low level cistern. P.C. 240/-	,,	14 17 6

GLAZIER

		To wood	To metal
18 oz. Ordinary quality sheet glass and glazing with putty in squares not exceeding 4 ft. sup.	per foot super	1/-	1/1
24 oz. Ditto and ditto	,,	1/1¾	1/3
32 oz. Ditto and ditto	,,	1/7½	1/8½
⅛" figured, rolled, and cathedral—untinted and ditto	,,	1/4	1/5
¼" rough cast and ditto	,,	1/8½	1/9½
¼" wired cast and ditto	,,	1/10½	2/-
¼" Georgian wired cast and ditto	,,	1/11	2/0½
¼" Georgian wired polished plate and ditto	,,	6/1½	6/3
¼" polished plate (glazing quality) and ditto	,,	6/-	6/2

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered walls and ceilings	per yard super	1/1½
Prepare and twice distemper with washable distemper on plastered walls and ceilings	,,	1/8½
Ditto on brick or concrete	,,	2/3
Prepare and paint two coats emulsion paint on plastered walls	,,	2/6
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	,,	4/7

Paint on Metal

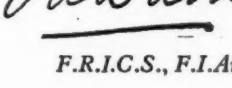
		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	per yard super	2/11	1/4
Ditto metal casements	,,	4/6	1/11½
Ditto members of roof trusses	,,	3/8½	1/8
Ditto balustrades one side	,,	4/6	1/11½
Ditto bars, etc., not exceeding 6" girth	per yard run	-/9	-/4
Ditto small pipe	,,	-/9	-/4
Ditto large pipe	,,	1/6	-/8

Paint on Wood

		Basic price	Add for each additional coat
Knot, prime, stop and paint one coat oil colour on general surfaces of woodwork	per yard super	3/3	1/4
Ditto on skirtings, rails, frames, etc., not exceeding 3" girth	per yard run	-/5	-/2
Ditto ditto for each additional 3" in girth	,,	-/4½	-/2
Ditto on sash squares one side	per dozen	3/9	1/6
Ditto on large sash squares one side	,,	6/10	2/9

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	per yard super	3/8
Ditto on skirtings, rails, frames, etc. not exceeding 3" girth	per yard run	-/6
Ditto ditto for each additional 3" in girth	,,	-/5



F.R.I.C.S., F.I.Arb.

(continued from p. 605)

Wage rates, materials prices and measured rates—the 3 main sections of the book—are based on prices current and wage rates in force in early February and "stop press" figures are given showing the changes in materials prices, wage rates and building costs that took place between early February and June 25, 1953, being respectively: −0·5 per cent., +1·7 per cent. and +0·38 per cent. These figures are based on the assumption that the ratio of labour and materials costs is 40:60, as are the conversion tables which enable the reader to calculate building costs at any time in the past and to take into account future fluctuations in wage rates and materials prices.

Other sections of this standard work include: Working Rules; Approximate Estimating, including Cubing; Daywork and Fees for Professional Services.

9.37 design: general

DESIGN DATA

Planning: The Architect's Handbook. E and OE (S. Rowland Pierce and Patrick Cutbush.) (Iliffe & Sons Ltd. 7th Edition. 1953. 30s.)

Third post-war edition of this now-standard reference work, the first edition of which was published in 1936. Thirty-two sections, each dealing with a building type, all revised for this, the 7th edition, and including 3 new sections—on hostels, public-service vehicles and camps for motorists. The functions of each building type are analysed, circulation diagrams suggested, and a wealth of design data given on dimensional and space requirements. 571 pp., including good 7-pp. index. 650 line drawings.

22.61 sound: insulation-acoustics

AIRCRAFT NOISE

Symposium on Aircraft Noise. Various authors. (Journal of the Acoustical Society of America. Vol. 25. No. 3. May, 1953.)

Symposium of 14 papers on the subject of aircraft noise, three or four of which contain information on the design and construction of engine (including jet engine) and aircraft testing installations. These articles will be of value to anyone having this specific design problem, as there is very little other literature on the subject.

26.109 services and equipment: miscellaneous

ELECTRIC CABLES AND FLEXIBLE CORDS

Polyvinyl Chloride Insulated Cables and Flexible Cords for Electric Power and Lighting. BS 2004:1953. (British Standards Institut.on. 6s.)

Rubber-insulated Cables and Flexible Cords for Electric Power and Lighting. BS 7:1953. (British Standards Institution. 10s.)

BS 2004 replaces a 1946 supplement to BS 7, but now deals only with P.V.C.-insulated cables and flexible cords for voltages up to 250. It covers quality and test methods.

The revision of BS 7 supersedes the 1946 edition. The main changes are the reduction of insulation thicknesses and the introduction of quality clauses. Other new features are the specification of the composition of various types of tough rubber sheath, requirements for the aluminium sheath, the inclusion of hard-drawn copper conductors for "house service overhead system" (HSOS) cables, and the adoption of 20°C. as the standard reference temperature.

QUESTIONS & ANSWERS

Questions to the Technical Editor are answered confidentially and free of charge.

3074 BUILDING OVER CHURCHYARDS

Q *I should be very glad if you could give me any information regarding the disposal of graves and headstones in a disused churchyard.*

My clients have purchased a disused chapel with a considerably large graveyard attached, containing quite a number of tombs, and they are anxious to know whether or not, at any time in the future, they may extend their existing building over a portion of the graveyard.

A The development of disused burial grounds, both consecrated and unconsecrated, is dealt with by Section 28 of the Town and Country Planning Act, 1944, re-enacted in the 11th Schedule of the 1947 Act. The Section is detailed and too long to repeat here but, in brief, there are prohibitions on building over disused burial grounds and only if the land is acquired and re-sold by the local planning authority can these prohibitions be removed.

3075 TREATING WORN FLOORS

Q *I have been asked to advise a client on the best treatment for a timber boarded floor which is subject to heavy wear and moisture. The floor is in the cutting room of a fishmonger's shop where water and fish juice are constantly being spilled; crates and boxes and waste bins are also moved about frequently and there is regular foot traffic.*

The floor is old, but sound, though the openings between boards are numerous. My only suggestion—that of using a heavy duty linoleum—is not welcome as it is found to need too frequent replacement.

Is there any way of laying an impervious floor on top of this boarding?

A It is not easy to answer your inquiry without inspecting the floor. If the floor has no basement beneath, I feel that the most satisfactory solution would be to remove the joists and flooring, replace with a concrete floor, laid in two thicknesses, with a damp-proof membrane between the two sections. The floor could then be finished with a variety of surfacing materials.

If the present timber floor must be retained, I think the best finish would be a modern plastic tile, set in a waterproof adhesive by a specialist firm. Several of these floorings have skirtings to match which would be useful in your case.

Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers' names please.)

.....

.....

.....

Please ask manufacturers to send further particulars to :—

NAME .....

PROFESSION or TRADE

.....

ADDRESS .....

.....

12.11.53

Buildings Illustrated

Public Mortuary for the Uxbridge Urban District in Kingston Lane, Hillingdon, Middlesex. (Pages 594-595.) Architect: H. E. G. Stripp, A.M.I.C.E., F.R.I.C.S., M.I.MUN.E., M.INST.R.A.; Chief Assistant Architect: A. F. W. Toms, L.R.I.B.A.; Senior Architectural Assistant: L. G. Beilby, A.R.I.B.A. Quantity surveyors: A. Boxall & Partners. General Contractor: Purser & Co. (Hillingdon) Ltd. Clerk of works: F. T. Hawkins. General foreman: J. Bennett. Sub-contractors: bricks, Uxbridge Flint Brick Co. Ltd.; artificial stone, Empire Stone Co. Ltd.; roofing felt, Ragusa Asphalte Paving Co. Ltd.; glass bricks, Pilkington Bros. Ltd.; patent glazing, Helliwell & Co. Ltd.; terrazzo flooring, Alan Milne (Flooring) Ltd.; "Semastic" tiles (supplied by Horsley Smith & Co. Ltd.); incinerator, Incinerator Co. Ltd.; gas fixtures, Ascot Water Heaters Ltd.; electric wiring, Uxbridge Urban District Council (Engineer & Surveyor's Dept.); electric light fixtures and heating, Stearn Electric Co. Ltd.; refrigeration, Brett Daniels Ltd.; sanitary fittings, Broad & Co. Ltd.; door furniture, Comyn Ching & Co. Ltd.; casements, Crittall's Metal Windows (supplied by Kirby Bros. Ltd., Uxbridge); window furniture (opening gear), Crittall Manufacturing Co. Ltd.; rolling shutters, Morgan & Partners Ltd.; "Sunray" sunblinds, Venetian Vogue Ltd. (supplied by Randalls Stores Ltd.); decorative wall linings, C. V. Creffield & Co. Ltd.; joinery, Morgan & Partners Ltd., and C. V. Creffield & Co. Ltd.; tiling, Roman Mosaic Ltd.; furniture, textiles, Randalls Stores Ltd.; shrubs and trees, Uxbridge Urban District Council (Parks Department); flat roof decking, Universal Asbestos Manufacturing Co. Ltd. (supplied by B. Finch & Co. Ltd.) and Meta-Mica Ltd.

Limbrick Wood County Primary Schools, Coventry. (Pages 598-602.) Architects: Department of the City Architect & Planning Officer, Coventry, in collaboration with the Development Group of the Architects & Building Branch, MOE. Consulting Architects to the Bristol Aeroplane Co.: Richard Sheppard & Partners. General contractors: Gilbert-Ash Ltd. Prefabricated aluminium units: The Bristol Aeroplane Co. (Weston) Ltd. Sub-contractors: heating installation, Weatherfoil Heating Systems Ltd.; electrical installation, Hartley Electromotives Ltd.; sanitary fittings, Adamsez Ltd.; ironmongery, Lockerbie & Wilkinson (B'ham) Ltd.; joinery, cloakroom trolleys, play equipment, J. Musson & Co. Ltd.; Marley tile flooring, Coventry Tile Co. Ltd.; fencing, Penfold Fencing & Eng. Co. Ltd.; roller shutters, G. Brady & Co. Ltd.; layout of playing fields, Coventry City Parks Department; sink wastes, Econa Modern Products Ltd.; duct covers, Broads Manufacturing Co. Ltd.; sink bearers, Clark Hunt & Co. Ltd.; gates, metal footscrapers, T. Sadler; gas installation (internal and external), West Midlands Gas Board; Matwell frames, Matterson, Huxley & Watson Ltd.; doormats, National Institution for the Blind; tarmac roads and play spaces, Gulistan Road Constructions, Ltd.; Venetian blinds, J. Avery & Co.; portable shelving, E. O. Shanks & Sons Ltd.; fire-fighting equipment, J. Kerr & Co. (Manchester) Ltd.; curtain track, T. French & Sons Ltd.; paint, Docker Brothers; curtains, Holbrooks (Coventry) Ltd.; precast plaster partitions, Bellrock Gypsum Industries Ltd.

Announcements

M. H. B. Zackaria, architectural draughtsman, of 224, New Moor Street, Colombo 12, Ceylon, would like to receive catalogues and books showing sizes, weights, etc., of steel angles, steel channels, bolts and nuts, coach screws, mild steel sheets, RSJ's, steel flex, steel rounds, ordinary washers (iron), galvanized corrugated sheets, etc.

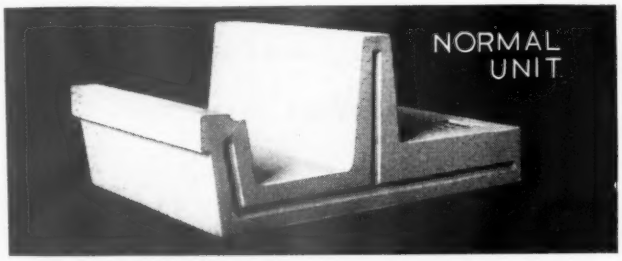
EAVES GUTTERS

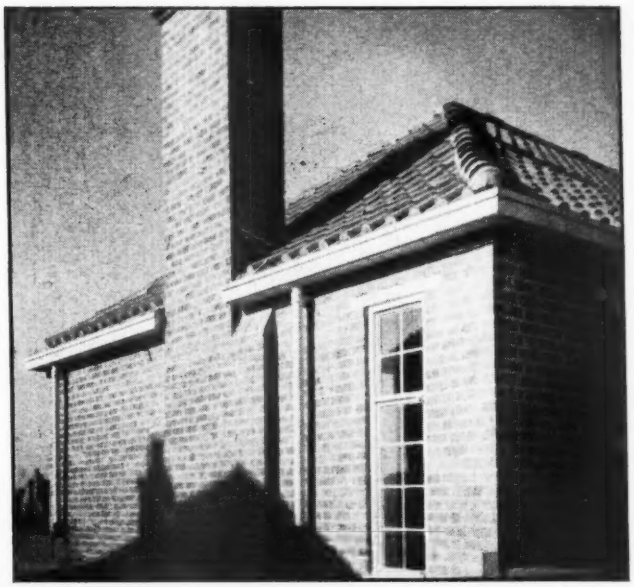
The "M-M" Precast Concrete Eaves Unit. (*Patent No. 576004.*)

For flat or pitched roofs and for brick, stone and steel structures. No props or formwork are required, the units sit firmly when placed and are fixed in one operation . . . Projection—9 inches. Economical in labour and timber. Permanent, practical and of good architectural appearance.

Standard Units	Overall sizes	Weight each
Normal Units	1′ 1¾″ by 1′ 8″	84 lbs.
Outlets (for 3in. R.W.P.'S.)	1′ 1¾″ by 1′ 8″	82 lbs.
External Angles	1′ 8″ by 1′ 8″	150 lbs.
Internal Angles	2′ 0″ by 2′ 0″	165 lbs.
Butt Ends	1′ 8″ by 1′ 8″	125 lbs.
Return Stop Ends (for pitched roofs)	1′ 8″ by 1′ 8″	154 lbs.
Closers from 7in. to 1ft. 1in.	—	—

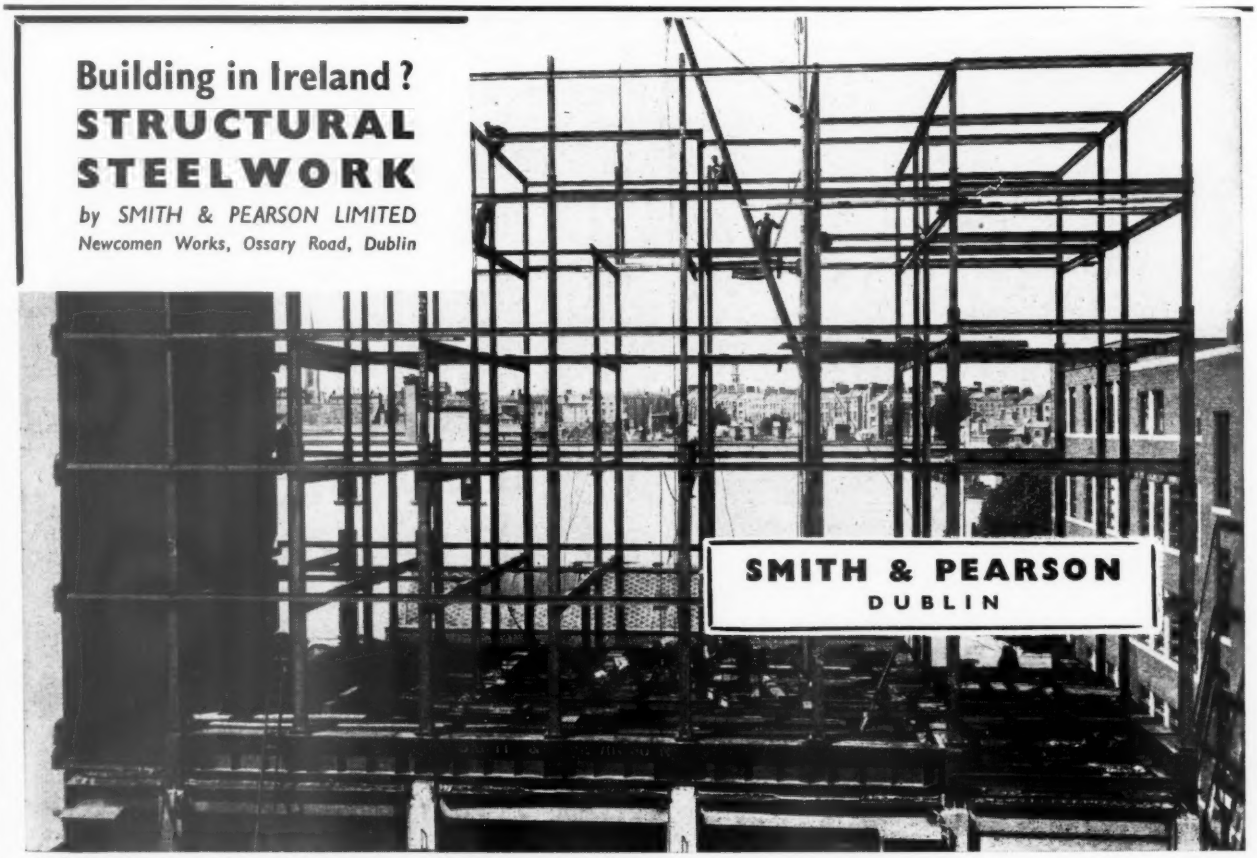
When fixed, six normal units scale 7ft. 0in. A fixing detail is sent to the site before the units are delivered. Prices and full particulars are sent upon application . . . Manufactured under licence.





TARMAC LIMITED
VINCULUM DEPT.
ETTINGSHALL. WOLVERHAMPTON
Telephone: Bilston 41101-11 (11 lines).
LONDON OFFICE: 50, PARK ST., W.1. (GROSVENOR 1422-5)

Building in Ireland?
STRUCTURAL STEELWORK
by SMITH & PEARSON LIMITED
Newcomen Works, Ossary Road, Dublin



An Extension to the Gresham Hotel, Dublin. Architects: Downes & Meehan.

Adequate shade without stuffiness

—just one of the points I like about DANAURA blinds

THE SILVER JUBILEE 1891 25TH 1953 BUILDING EXHIBITION Nov. 18th - Dec 2nd 1953 OLYMPIA · LONDON

SEE OUR EXHIBIT

SEE US ON OUR STAND No. 547 and 549 NATIONAL HALL GALLERY.

DANAURA venetian blinds are becoming increasingly popular in offices, homes, hospitals and schools. When the streets are hot, rooms fitted with DANAURA are shady and cool. When the March winds blow, they are strangely free from draughts. And when it's dark at four and the lights are on, the whole room is bathed in a brighter luminosity.

DANAURA slats are made of an aluminium alloy that deflects solar radiation, but *reflects* artificial light and heat. Their stove enamelled finish deters dust and simplifies cleaning.

Other DANAURA features include: rubber rolls to protect ladder tape; plastic caps to prevent paintwork scratching; free-wheeled cord lock and flexible spindle. Choice of thirteen attractive colours with, of course, matching or contrasting ladder tapes.

DANAURA Blinds

Send for literature and colour card: DEPT. A.J.

DANAURA LTD, 12 WHITEHALL, LONDON, S.W.1

Telephone: Whitehall 5704

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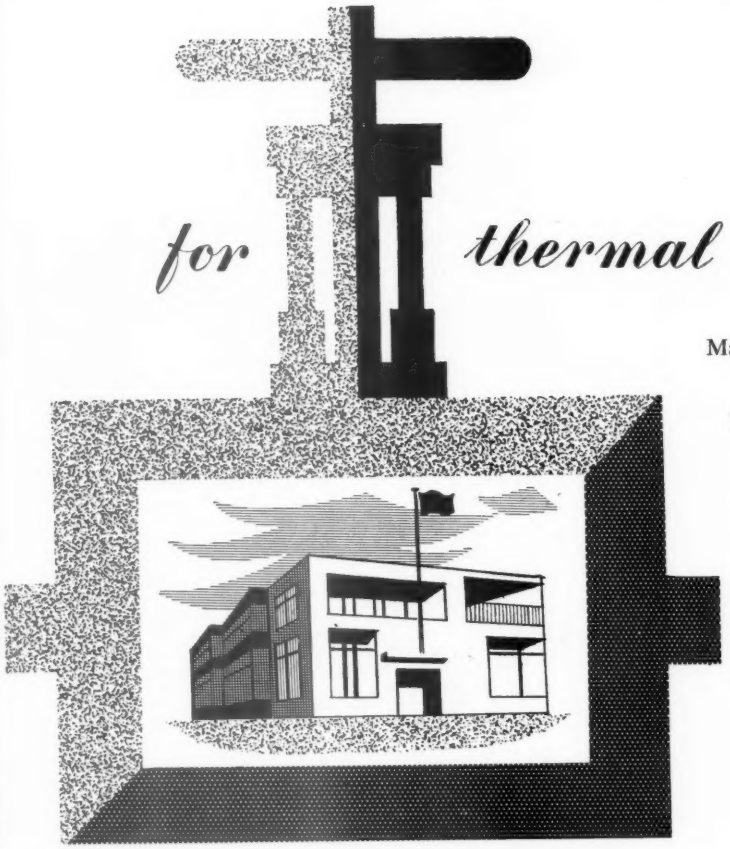
TYBURN ROAD · BIRMINGHAM 24

TELEPHONE: ERDINGTON 1616 (5 LINES)

CONSTRUCTORS GROUP



for thermal insulation

Many are the problems of thermal insulation in public buildings, flats, office blocks and similar buildings, yet Versil takes good care of them all from the boilers in the basement to the tanks in the roof. In its many forms—blankets, bandages and pre-formed fittings, Versil combines high thermal efficiency and stability with ease of handling and accessibility. For information write to Versil Ltd., Rayner Mills, Liversedge, Yorkshire.

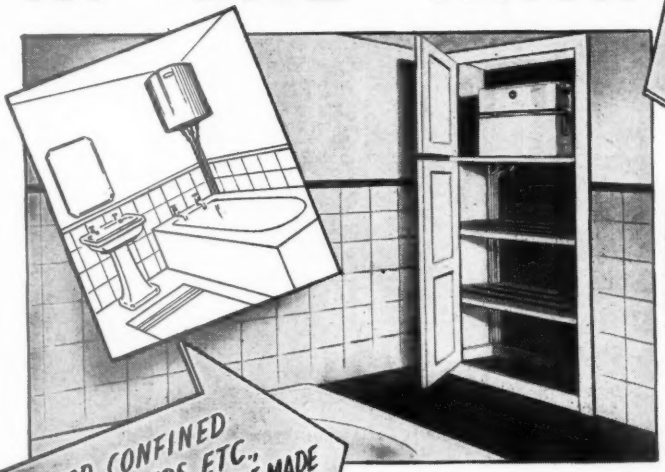
VERSIL

GLASS SILK INSULATION

CFW

A COMPLETE HOT WATER SYSTEM

IN ONE TANK



SPECIFIED BY MORE THAN 300 LOCAL AUTHORITIES

Simplicity for Plumbing, Compactness for limited spaces, Accessibility after fixing, and far greater Heating Efficiency are the characteristics of the Rolyat system which have outmoded the tank and cylinder and convinced heating engineers and local authorities throughout the country of its superiority.

Several types and sizes are available for both Hard and Soft water areas and in various designs and capacities.

The manufacturers will be pleased to send complete specifications on request.

IDEAL FOR CONFINED SPACES CORNERS ETC., THE RECESSED TYPE CAN BE MADE DOWN TO A BACK TO FRONT MEASUREMENT OF ONLY 12 INCHES

ROLYAT PATENT HOT WATER TANKS

THE ROLYAT TANK CO·LTD · CROMWELL ROAD · YORK

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

25s. *per inch; each additional line,* 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 *inclusive or a woman aged* 18-59 *inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order,* 1952.

LONDON ELECTRICITY BOARD.
CHIEF ENGINEER'S DEPARTMENT.

Applications are invited for the following positions in Central London:—

STRUCTURAL ASSISTANTS and STRUCTURAL DRAUGHTSMEN (Construction Branch). Applicants for positions of Structural Assistants should have experience in the design and detailing of reinforced concrete heavy foundations, framed superstructures, and other structural works. Applicants for Structural Draughtsmen should have experience in detailing reinforced concrete structures.

The posts are graded under Schedule "D," National Joint Board agreement, as Grade 5, £595 7s. to £704 11s., and Grade 6, £458 to £595 7s., per annum respectively, inclusive of London allowance. Commencing salaries will be dependent upon qualifications and experience.

ARCHITECTURAL DRAUGHTSMAN.

Applicants should be neat draughtsmen and preferably have had several years' experience in an Architect's office.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6, £458 to £595 7s. per annum, inclusive of London allowance.

Application forms obtainable from Establishments Officer, 46, New Broad Street, E.C.2, to be returned completed by 21st November, 1953. Please enclose addressed foolscap envelope, and quote ref. V/1683/A on all correspondence. 9851

WARWICKSHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
ASSISTANT QUANTITY SURVEYOR.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR grade A.P.T. IV-V (£555—£645). Preference will be given to candidates who have passed the intermediate examination of the R.I.C.S. but this is not essential. The work will consist mainly of interim valuations and final accounts.

ARCHITECTURAL ASSISTANT. Applications are also invited for an Architectural Assistant grade A.P.T. II (£495—£540).

Both appointments are subject to the conditions of the Local Government Superannuation Act, 1937 and the successful candidates will be required to pass a medical examination.

Application forms can be obtained from G. R. Barnsley, F.R.I.B.A., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS.
Clerk of the Council.

Shire Hall, Warwick. 9918

COUNTY BOROUGH OF BOURNEMOUTH.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

SENIOR ASSISTANT ARCHITECT. Established post. Salary Grade: A.P.T., VII (£710-£785 per annum).

ASSISTANT ARCHITECT. Unestablished post. Salary Grade: A.P.T., VI (£670-£735 per annum).

Applicants for these positions must be Registered Architects, Members of the R.I.B.A., and have a comprehensive knowledge of architectural works required by Local Authorities.

JUNIOR DRAUGHTSMAN. Age 20/22 years. Unestablished post. Salary Grade: General Division (£230 per annum at 20 years of age, rising, according to age, to £450 per annum at 30 years).

The successful candidates will be appointed at their present salaries if such salaries are within the incremental scales of the respective advertised posts.

The above appointment will be terminable by one month's notice, in writing, on either side, and subject to the provisions of the Local Government Superannuation Act, 1937, also to the conditions of service in accordance with the National Scheme.

The successful candidates will be required to pass a medical examination.

No assistance can be offered regarding housing accommodation.

Applications, on forms to be obtained from the Borough Architect, Town Hall, Bournemouth, accompanied by copies of three recent testimonials, to be returned to the undersigned in envelopes endorsed "Staff Architectural," not later than 10 a.m. Saturday, 21st November, 1953.

A. LINDSAY CLEGG.
Town Clerk.
9897

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division:—

CIVIL ENGINEERING DRAUGHTSMEN, Construction Department. (Vacancy No. 22/53.)

Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc., for general building construction drainage and sanitation schemes, associated with office and administrative buildings.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

ENGINEERING DRAUGHTSMEN (MECHANICAL), Construction Department. (Vacancy No. 44/53.)

Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—

(i) Design and layout of Power Station equipment, including Turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.
(ii) H.P. and L.P. steam and feed pipework. Condensing plant and feed heating systems.
(iii) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

Salary and conditions of service will be in accordance with the National Joint Board Agreement, Grade 5 (£567-£671 per annum) and Grade 6 (£433-£567 per annum) of Schedule D, according to experience.

ENGINEERING DRAUGHTSMEN (ELECTRICAL), Construction Department. (Vacancy No. 61/53.)

Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. Switchgear, transformers, E.H.T. and L.T. cables; knowledge of protective gear systems would be an advantage.

The salary will be in accordance with Grade 5 (£567-£671 per annum) or Grade 6 (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

The above positions will be pensionable within the provisions of the British Electricity Authority and Area Boards Superannuation Scheme.

Applications should be submitted on the official form, which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned by the dates stated. Please quote Vacancy Number.

L. F. JEFFREY.
Divisional Controller.
9898

EAST KILBRIDE DEVELOPMENT CORPORATION.

Applications are invited for the appointment of ASSISTANT CHIEF ARCHITECT (PLANNING) in the architectural and planning department of the Corporation.

The main duties of the post are: (1) To produce broad outline plans of all developments; (2) to supervise the preparation of detailed layout work for both residential and central areas; and (3) to supervise the collection and analysis of statistical information. The qualifications required are those of an architect planner, and recent experience in both architecture and planning is desirable.

The salary scale is £1,100 by £50 to £1,350 per annum, with placing according to experience, etc.

The appointment is subject to the Corporation's Conditions of Service and Superannuation Agreement. The selected candidate will be required to pass a medical examination. A house will be made available if required. Application forms may be obtained from the General Manager, Torrance House, East Kilbride, to whom they should be returned not later than 21st November, 1953.

Canvassing, directly or indirectly, of the members of the Corporation will constitute an absolute disqualification. 9899

MINISTRY OF WORKS.

Vacancies exist in London in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS with recognised training and fair experience. Employment will be on a wide variety of Public Buildings including Atomic Energy and other Research Establishments, Telephone Exchanges and Housing.

Salary: Up to £628 per annum. Starting pay according to age, qualifications and experience.

Although not established posts, many have long term possibilities and competitions are held periodically to fill established vacancies. Reasonable prospects for promotion to Leading and Senior Architectural Assistant.

State age, nationality, full details of training and experience to Chief Architect, W.G.10/C.A.3. (G), Ministry of Works, Abell House, John Islip Street, London, S.W.1. 9733

LANCASHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following permanent appointment:—

SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T., Grade VIII (£760-£835 per annum).

Application forms, to be returned by Saturday, 21st November, 1953, obtainable from the County Architect, County Hall, Preston. 9894

CAMBRIDGESHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of QUANTITY SURVEYOR, on Grade VII, A.P.T. Division (£710×£25—£785), of the National Scale of Salaries.

Candidates should be experienced in taking off, abstracting, and billing of Bills of Quantities, Specifications, detailed estimates, valuations for interim certificates, and the settlement of final accounts.

Applications, stating age, qualifications, and experience, accompanied by one recent testimonial, and the names and addresses of two referees, should be sent to the Clerk of the County Council, Shire Hall, Cambridge, not later than Thursday, 19th November, 1953.

The appointment to be subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Acts.

The selected candidate will be required to pass a medical examination.

CHARLES PHYTHIAN,
Clerk of the County Council.

Shire Hall, Cambridge.
30th October, 1953. 9909

CITY OF BIRMINGHAM EDUCATION COMMITTEE.
APPOINTMENT OF STAFF TO ARCHITECT'S BRANCH.

Applications are invited for the following appointments in the Architect's Branch of the Birmingham Education Department (Architect to the Committee: Mr. J. R. Sheridan-Shedden, A.R.I.B.A.):—

ASSISTANT CLERK OF WORKS (Temporary). Salary: Miscellaneous Grade IV (£440—£495).

Applicants should have had a thorough technical training and experience in building construction materials.

Application forms, which may be obtained (s.a.e.) from the undersigned, must be returned not later than 23rd November.

E. L. RUSSELL,
Chief Education Officer.

Education Office,
Margaret Street, Birmingham, 3.
9910

CITY OF PLYMOUTH.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT ARCHITECT, Grade A.P.T., V (£595 to £645).

The appointment is subject to the Conditions of Service of the National Joint Council for Local Authorities Administrative, Professional, Technical and Clerical Services; the Local Government Superannuation Act, 1937; a satisfactory medical examination, and one month's notice on either side for termination.

Candidates should be experienced in the design and construction of schools, municipal housing or general work, must be Registered Architects, and preference will be given to Members of the R.I.B.A.

Applicants must not be over 40 years of age, but this condition may be released in the case of a person up to 45 years of age employed by another Local Authority.

Applications on forms obtainable from the undersigned, accompanied by copies of not more than three recent testimonials, and/or names of persons to whom reference may be made, should be received at my office not later than the 30th November, 1953.

The Corporation may make housing accommodation available to the successful married candidate if required.

H. J. W. STIRLING, A.R.I.B.A.,
City Architect.

Seymour Road, Plymouth. 9935

CITY AND COUNTY OF NEWCASTLE UPON TYNE.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited from suitably qualified persons for the following vacancies on the permanent staff:—

(*a*) SENIOR ASSISTANT ARCHITECTS in A.P.T. Division, Grade VI (£670—£735).
(*b*) ASSISTANT ARCHITECTS, in A.P.T. Division, Grade V (£595—£645).
(*c*) ASSISTANT ARCHITECT in A.P.T. Division, Grade III (£525—£570).

The Architectural Work being undertaken is of an interesting contemporary character, and comprises an extensive programme of Houses and Flats, a considerable volume of Educational Building Work, and General Architectural Work for all other Committees of the Corporation. Applicants may state a preference to be considered for work of a particular character.

The appointments will be subject to the National Conditions of Service as adopted by the City Council, to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side. Successful candidates will be required to pass a medical examination.

Applications stating position applied for, age, particulars of training, qualifications, experience, present and past appointments, together with copies of two recent testimonials, or the names and addresses of two persons to whom reference may be made, should be addressed to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, to be received not later than Saturday, 21st November, 1953.

JOHN ATKINSON,
Town Clerk.

Town Hall, Newcastle upon Tyne, 1.
30th October, 1953 9895

CITY OF SHEFFIELD.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the staff of the City Architect (Mr. J. L. Womersley, A.R.I.B.A., A.M.T.P.I.).

(a) ASSISTANT ARCHITECT, A.P.T., V(a) (£625-£685 per annum). Candidates should be Associates R.I.B.A.

(b) ARCHITECTURAL ASSISTANT, A.P.T., III (£525-£570 per annum). Candidates must have passed the Intermediate Examination of the R.I.B.A.

The posts, which are superannuable and subject to medical examination, are established in the Education and General Section, and experience of conversions and alterations of public buildings will be an advantage.

Applications, stating age, education and training, qualifications, present and past appointments (with dates and salaries), experience, and the names and addresses of two referees, should reach me by the 24th November, 1953.

JOHN HEYS,
Town Clerk.

The Town Hall, Sheffield, 1. 9936

HER MAJESTY'S COLONIAL SERVICE
CHIEF ARCHITECT, ARCHITECTURAL DEPARTMENT (DEVELOPMENT AND WELFARE) MAURITIUS (CDE 112/52/01).

To be in charge of the Architectural branch of the Development and Welfare Organisation and responsible for all architectural work undertaken by the Government.

Appointment is on contract for 3 years at a fixed salary of £1,485 per annum. Gratuity at the rate of £37 10s. for each 3 months' service payable on satisfactory completion of contract. Cost of living allowance of 9 per cent of basic salary at present payable. Leave at the rate of 4 days for each completed month of resident service. Free passages for officer, wife and up to 3 children.

Candidates must be A.R.I.B.A. preferably with experience in Town Planning and in the Architectural department of a public authority.

For application forms and further particulars write to the Director of Recruitment (Colonial Service) Colonial Office, Sanctuary Buildings, Great Smith Street, London, S.W.1, quoting reference CDE 112/52/01. Closing date for receipt of initial enquiries 4th December, 1953. 9911

COUNTY BOROUGH OF WALSALL.
PUBLIC WORKS DEPARTMENT.

ASSISTANT ARCHITECT is required in A.P.T. Division, Grade V (£595-£645). National Joint Council's conditions of service will apply.

Applications, giving age, details of qualifications and experience, together with copies of two recent testimonials, should be received by the undersigned *not later than Friday, 20th November*, 1953.

M. E. HABERSHON,
Borough Engineer and Surveyor.

Council House, Walsall.
31st October, 1953. 9896

MIDDLESEX COUNTY COUNCIL—COUNTY ARCHITECT'S DEPARTMENT.

ASSISTANT ARCHITECTS, registered, required, A.P.T. VI (£670—£735 per annum). A.P.T. V (£595—£645 per annum) each plus London Weighting. Appointments at grade minimum. Established, subject to medical assessment and prescribed conditions. Experience of educational buildings an advantage. Application forms (stamped addressed envelope, foolscap) from County Architect, 1, Queen Anne's Gate Buildings, Dartmouth Street, S.W.1, returnable by 21st November (quoting M.691 Architects' Journal). Canvassing disqualifies. 9916

MIDDLESBROUGH EDUCATION COMMITTEE.

Assistant Architect, Grade V, required in the Education Offices (Education Architect—P. R. Middleton, Dipl.Arch., A.R.I.B.A.). The Building Programme in hand offers excellent opportunities in the design and construction of modern school buildings.

Forms of application and conditions of service obtainable from the Director of Education, Education Offices, Woodlands Road, Middlesbrough, to whom completed forms should be returned not later than Wednesday, 25th November, 1953. 9927

LIVERPOOL REGIONAL HOSPITAL BOARD.

Applications are invited for permanent pensionable appointments in department of Regional Architect, T. Noel Mitchell, B.Arch., A.R.I.B.A., 88, Church Street, Liverpool, 1:—

(i) ARCHITECTURAL ASSISTANT: Applicants must have Inter.R.I.B.A., good general experience and ability in design and construction.

(ii) QUANTITY SURVEYING ASSISTANT: Applicants must have Inter.R.I.C.S. (Quants.Sub.Div), and have had, under supervision, experience in working up, abstracting and billing, measuring and adjusting variations, settling contractors' final accounts and some experience in taking off.

Salary in each case will be £440 rising to £625 per annum. Advanced increments within the scale may be granted for experience.

Applications stating age, education, qualifications, experience, present and previous appointments and salary, and names and addresses of three referees (two technical), to the undersigned by 23rd November, 1953.

VINCENT COLLINGE,
Secretary to the Board.

19, James Street, Liverpool, 2. 9919

LONDON COUNTY COUNCIL.
APPOINTMENT OF ASSISTANT SCHOOLS ARCHITECT.

The Assistant Schools Architect, salary £1,650× £100—£1,950, will assist the Schools Architect, who is responsible to the Architect to the Council for the organisation and direction of the Schools Division dealing with the design and erection of educational buildings of all types. The position calls for experience in contemporary architectural design and modern methods of construction, and for qualities of leadership and organising ability of a high order. Form of application from the Architect (AR/EK/ASA), County Hall, London, S.E.1. Closing date: 30th November. (1194) 9908

CORBY DEVELOPMENT CORPORATION.
APPOINTMENT OF JUNIOR ASSISTANT ARCHITECTS.

Applications are invited from suitable qualified persons to fill the above appointments, in connection with an interesting and urgent programme of housing and central town buildings.

The three appointments, within the salary scale £525× £25 (2) to £575, are subject to the Local Government Superannuation Act, 1937, and medical examination. Detailed applications, including the names of two referees, should be received by the undersigned not later than 20th November, 1953, in envelope endorsed "Junior Assistant Architect."

R. F. BROOKS GRUNDY,
General Manager.

The Stone House, Corby, Northants. 9937

NIGERIAN COLLEGE OF ARTS, SCIENCE AND TECHNOLOGY.

Applications are invited for the post of LECTURER IN BUILDING. Duties will consist of instruction in Theory of Structures, Building Research and Building Construction to students of Architecture and in Building to Civil Engineering students.

The College is to be developed along the general lines of a U.K. Technical College for work of post-School Certificate standard, and has branches at Zaria, Ibadan and Enugu.

Applicants should preferably have had previous Technical College experience, and must possess either a professional qualification in Architecture, Structural and Civil Engineering, or Quantity Surveying, or a Technical College Diploma in Building.

Post is pensionable, but appointment on contract or secondment possible in certain circumstances. Salary scale: £750-£1,560 p.a., including overseas allowance. Point of entry into scale determined by experience. House provided at rent £57-£129 p.a., depending on basic salary. Free first-class passages once each way for each tour of service for person appointed and wife; either a passage allowance or a maintenance allowance for up to two children under 18. Income tax rates much lower than in U.K. Leave on full salary at rate of 7 days for each completed month of resident service. Tours of service likely to be 10-18 months.

Write for further information to the Secretary, Advisory Committee on Colonial Colleges, 1, Gordon Square, London, W.C.1. Closing date for applications (6 copies), 30th November, 1953. 9932

NEW TOWN OF CWMBRAN, MON.
CLERK OF WORKS.

Applications are invited for the above superannuable post of Clerk of Works in the Chief Architect's Department to supervise the erection of permanent houses and other buildings, including setting out, levelling, measuring-up and keeping records.

Commencing salary will be £525 rising by increments of £25 to £575 per annum.

Applications, which should state age, experience, present and former employment (with salaries), together with the names of two referees, should reach the undersigned by not later than 23rd November, 1953.

J. C. P. WEST, A.R.I.B.A., A.M.T.P.I.,
Chief Architect.

Victoria Street,
Cwmbran, Mon. 9925

SURREY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) ASSISTANT ARCHITECT, Grade V, commencing salary £595 p.a., rising by annual increments of £15/£20 to a maximum of £645 p.a., plus London allowance of up to £30 p.a., according to age.

Preference will be given to applicants who are Associate Members of the Royal Institute of British Architects, and who have had a good training and an adequate experience in the design and construction of modern buildings.

(2) ASSISTANT QUANTITY SURVEYOR, Grade V, commencing salary £595 p.a., rising by annual increments of £15/£20 to a maximum of £645 p.a., plus London allowance of up to £30 p.a., according to age.

The appointments will be subject to the provisions of the Local Government Act, 1937, and the successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 21st November, 1953.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

W. W. RUFF,
Clerk of the Council.

County Hall, Kingston-upon-Thames. 9934

METROPOLITAN BOROUGH OF SHOREDITCH.
ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant. Salary: A.P.T., V (£625-£675).

Subject to medical examination and Council's Superannuation Scheme and N.J.C. Conditions.

Preference will be given to candidates with a recognised architectural qualification.

Applications to Borough Architect, Town Hall, Old Street, E.C.1, stating age, training and experience, and giving two referees, to arrive by 25th November, 1953. 9933

AYCLIFFE DEVELOPMENT CORPORATION.
JUNIOR QUANTITY SURVEYOR.

Applications are invited for the above post. Salary Grade A.P.T. II (£495 × £15—£540).

Applicants should be Students of the Royal Institution of Chartered Surveyors and be capable of squaring dimensions, abstracting and billing, and measuring work, on site.

Appointment subject to N.J.C. conditions superannuation and one month's notice. Applications, stating age, qualifications and experience, with names of two referees to be sent to the undersigned by 23rd November, 1953.

A. W. THOMAS,
General Manager.

Newton Aycliffe,
County Durham. 9917

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she is, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City firm. Box 9468.

SSISTANT required for large general Architectural Practice with offices in Maidenhead. Some experience in specification writing essential. Salary £300 to £500, according to experience. Box 8935.

SENIOR ARCHITECTURAL ASSISTANT required by a Property Company in Uganda, East Africa; must be able to take charge of drawing office and be responsible for site surveys, the preparation of working drawings, specifications and details, etc. Hard furnished housing will be available and the successful candidate, subject to medical examination and contract, will be entitled to the following conditions:—

Free medical attention and free passages (not exceeding three adult fares) upon commencement and after each tour of three years, with three months paid home leave at termination of tour (six months if contract is to be renewed) and 14 days non-cumulative local leave per annum. A voluntary 10 per cent. Provident Fund Scheme will be available. Applications, giving full professional and domestic details and stating salary required should be addressed to:—The Secretary, Consolidated Properties Ltd., P.O. Box 442, Kampala, Uganda. 9799

ASSISTANTS required in Architect's office of a large industrial organisation in the Midlands. Preference will be given to applicants having experience in industrial requirements. Applications giving full particulars of experience, age, etc., to Box 1151, T. & G., 101, St. Martins Lane, London, W.C.2. 9885

THE CO-OPERATIVE WHOLESALE SOCIETY, LTD., invite applications for the appointment of ASSISTANT ARCHITECTS on the staff of the Manchester Architect's Department.

Applicants must have had good practical office experience, possess a sound knowledge of building construction, and be able to prepare working drawings and details from sketch plans.

The appointments are permanent, with prospects of promotion. Successful candidates will be required to undergo a medical examination for entry into a compulsory Superannuation Scheme.

Applications, stating age, experience, qualifications and salary required, to be addressed to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester. 9861

REQUIRED at once competent ARCHITECTURAL ASSISTANT, Intermediate standard. Office experience essential. Good draughtsman working drawings and details. Good salary paid. West Lancashire area. Private practice. Write with details. Box 9864.

JUNIOR ASSISTANT (18-24) required for small Architect's Dept. of Multiple Retail Company, with H.Q. in London. Capable of working with minimum of supervision. Occasional travelling involved. Write, stating age, experience, and salary required. Box 9868.

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

SENIOR ARCHITECTURAL ASSISTANT required, with minimum qualification of Intermediate R.I.B.A. Preference will be given to applicants having several years of office experience in the design of industrial buildings and housing. Write, stating age and details of experience and qualifications, to: Staff Office, Handley Page, Ltd., Cricklewood, London, N.W.2. 9856

ARCHITECTURAL ASSISTANT, Intermediate or Final standard, urgently required for country practice with South Worcestershire Firm of Architects. Varied work, including Housing, Agricultural, Schools, etc. State when free and salary required. Box 9876.

ARCHITECTURAL DRAUGHTSMAN required, inter standard, for Multiple Shop Co., London. Experienced, surveys, working drawings ¼ in. details. Canteen, permanency after qualifying period, state age, past experience and salary required. Box 9818.

VACANCY arises for JUNIOR ASSISTANT approaching inter standard in building, surveying or architecture in City firm. Box 9929

ARCHITECTURAL ASSISTANTS required, both senior and junior, at Leicester branch with general practice. Applications in writing to C. Edmund Wilford, A.R.I.B.A., 2, Hastings Street, Leicester. 9931

QUALIFIED HOUSING ARCHITECT. Full time services required. Apply stating experience, age and salary to Smiths Building Systems (Birmingham), Ltd., Smith Road, Wednesbury. 9928

ARCHITECTURAL DRAUGHTSMAN required for the South East London Area. Preferably with experience of Industrial buildings and L.C.C. requirements. Also JUNIOR DRAUGHTSMAN to assist the above. Please state age, experience and salary required. Box 9901.

RILEY AND GLANFIELD require an assistant immediately, intermediate standard. Salary £400 to £450 according to experience. 'Phone CHA 7328. 9902

SENIOR ARCHITECTURAL ASSISTANT required in large Birmingham Office. Design and perspective drawing ability an advantage. Please reply stating details of experience and salary required. Box 9903.

INTERMEDIATE STANDARD ARCHITECTURAL ASSISTANT required for Midland office. Please reply stating details of experience and salary required. Box 9904.

QUALIFIED and experienced SENIOR ASSISTANT required by provincial private practice with varied works in hand. Apply giving full details and salary required to Deacon & Laing, 9, St. Paul's Square, Bedford. 9905

SENIOR ASSISTANT required. Office trained. General practice. Apply in writing giving full details and salary required. E. William Palmer & Partners, 8, The Town, Enfield, Middx. 9907

ARCHITECTURAL TRAVELLER required in London District for high class old established Paint Manufacturers. Write stating age, experience and salary required to Box 9914.

INTERESTING appointment for young qualified Architect, with small but developing Property Company operating on South Coast. Good class housing, flats and conversions with opportunity for private practice by arrangement. Flat available in unique conversion two miles Bexhill. Commencing salary £600. Box 9915.

ARCHITECTURAL ASSISTANT required for general practice, capable of preparing working drawings, details and specification. Write stating qualifications, experience and salary required to: Geo. H. Herring, F.R.I.B.A., 21, Milton Road, Harpenden, Herts. 9915

JUNIOR ASSISTANT required. Student A.R.I.B.A. or equivalent. Interesting work, with good prospects. Full particulars to Vallis & Bird, Architects, Frome, Somerset. 9943

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT required in West End Office. Able to deal with working drawings, details, specifications and supervision for various commercial buildings. Alterations, reports, etc. Applicants must be chartered and/or registered Architects. Salary between £750 and £900 per annum according to ability. Apply E. H. D. Box 9922.

ARCHITECTS require (*a*) SENIOR ASSISTANT with good all round office experience and (*b*) ARCHITECTURAL DRAUGHTSMAN with first class Shop Fitting experience. Good salaries and permanency offered to capable applicants—Stephenson and Gillis, 2, Saville Chambers, Newcastle-on-Tyne. 9924

ARCHITECTURAL DRAUGHTSMAN required by large Birmingham Engineering Company. Applicant should be experienced Draughtsman in minor survey work, specification and quantities, preparation ½ in. scale details. Vacancy offers opportunity for young man who has either completed his military service, or is exempted. Apply, giving age, complete details of experience, etc., and salary required, to Personnel Manager, Fisher & Ludlow, Ltd., Kingsbury Road, Erdington, Birmingham, 24. 9941

FIRST-CLASS ARCHITECTURAL ASSISTANT required, age 33-40, for North Notts. industrial area. General practice, including factory, hotel and domestic work. Knowledge of Quantities advantageous. State qualifications and salary required. Box 9944.

WANTED. — SENIOR ARCHITECTURAL ASSISTANT. Final standard, with experience in Local Authority Housing. Interesting appointment in busy provincial office in S.W., with work of very varied character. Full particulars, training, experience, salary required, etc., to Box 9942.

COMPETENT ASSISTANT required for West End office. About Intermediate standard. Experienced in commercial work; neat and quick draughtsman. Salary according to ability. Box 9939.

ASSISTANT required for office in London, W.1. Good draughtsman. Write, stating experience and salary required. Box 9940.

Architectural Appointments Wanted

A. R.I.B.A., Dip.Arch. (36) seeks senior position in contemporary London office where there is scope for technical and constructional knowledge. Box 9809.

ASSOCIATE (35), 10 years' varied experience, including administration of all types of building contracts seeks partnership or position leading thereto. London or Home Counties. Some capital available if required. Box 803.

SENIOR ASSISTANT desires post, London or S.W. Vicinity. Experienced surveys, sketches to complete working drawings. Site supervision, reporting, etc. Industrial, domestic and licensed premises. Salary £600—£700. Box 9906.

ARCHITECTURAL ASSISTANT (25), with 9 years' wide general experience in London and S.E., seeks position with prospects in contemporary office in London or vicinity. Neat draughtsman, sketch plan to final account, specifications, supervision. Kindly reply to Box 804.

CONTINENTAL ARCHITECT (31), previous experience in Italy and Czechoslovakia, four years in England, seeks full or part-time engagement. Box 805.

FINAL R.I.B.A (27), school trained, with contemporary outlook, seeks responsible position in West End of London general practice. Experienced sketch scheme to complete working drawings, site supervision, specifications, etc. Industrial, domestic and conversions. Own car. Salary: commencing £650. Box 806.

ARCHITECT (age 34), A.R.I.B.A., A.A.Dip., requires post as assistant in office with contemporary outlook. Appointment as architect to progressive industrial concern considered. Box 9930.

HADDON Travelling Scholar, A.R.A.I.A., B.Arch. (Melbourne), 29, seeks position contemporary office. Sidney Smith, c/o ANZ Bank, 6, Albemarle Street, London, W.1. 808

YOUNG Lady ARCHITECTURAL ASSISTANT, qualified, 4 years' experience in England and Australia, seeks position in contemporary office. Box 807.

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

REPRESENTATIVE, with well-established connections with Architects, wanted by manufacturer of approved Sanitary Installation. Please apply Box 9938.

ESTIMATOR, experienced in design and construction, required for architectural wrot metalwork. Pension scheme and canteen facilities in operation. Apply stating age, experience and salary, etc. Foundry Manager, H. H. Martyn & Co. Ltd., Sunningend Works, Cheltenham. 9912

APPLICATIONS are invited for the position of CLERK OF WORKS to supervise erection in Kingston, Jamaica, of an important commercial building. Applicants must have had experience of large building contracts in reinforced concrete construction. The appointment will be subject to medical examination and will start as soon as possible, but not later than January, and be for a minimum of 20 months. Age between 35 and 50. Salary by arrangement. Passage allowance and usual expenses paid at start and end of appointment. Applications in writing, giving full particulars including qualifications, experience and age, must be addressed to Norman & Dawbarn, 5, Gower Street, London, W.C.1, and be received not later than 20th November. 9923

For Sale or Wanted

4 lines or under, 7s. 6d.; each additional line, 2s.

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos, Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6803

Services Offered

4 lines or under, 7s. 6d.; each additional line, 2s.

ARCHITECTURAL MODELS. We shall be pleased to receive your commissions for either block layouts or detail work. Box 9843.

TYPING AND DUP. SPECIFICATIONS, SCH. OF DILAPS. promptly executed. Moderate charges, enquiries welcomed. N.W. LONDON TYP. BUREAU, 148, STRAND. COV. 2968. 9793

STAINED GLASS ARTIST AND MURAL PAINTER free to undertake Commissions at reasonable terms. W. F. Lowe, 52, Derwent Road, N.13. PAL 2000. 9872

Sale by Auction

6 lines or under, 12s. 6d.; each additional line, 2s.

TO ARCHITECTS, BUILDERS, INTERIOR DECORATORS and others. The fine quality interior fittings and building materials contained in the mansion "Stelvio Court," Eastbourne, (which is being demolished) to be sold by Auction on 25th November, 1953, including ornamental bronze and glass sun lounge enclosure, 2,000 sq. feet oak panelling, 3 oak chimney pieces, 6 panelled oak doors, 4,000 ft. super oak flooring, 200 metal casement windows (suitable for re-use in small modern houses), the whole of the carcasing timber, 30,000 roof tiles, 20 pine doors, 20 four-panel doors, baths, tanks, lavatory basins, radiators, etc., etc., catalogues from Oakden & Co, 24, Cornfield Road, Eastbourne, Tele. Eastbourne 1234. 9900

Miscellaneous

4 lines or under, 7s. 6d.; each additional line, 2s.

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

NAMEPLATES in Bronze, Brass and Plastics. Send for sketch and estimate. Austin Luce & Co., 321, Pinner Road, Harrow, Middlesex. 9816

SIR HUGH CASSON, Professor of Interior Design, Royal College of Art, London, S.W.7, would be grateful to receive from manufacturers any booklets, information sheets, specification notes or samples, for inclusion in a library used by students of architecture and interior design to keep abreast of latest methods. 9921

FOR FULLY GALVANISED Chain Link always specify MASTERFOIL. Messrs. Fencing & Gates, Ltd., fourteen, Stanhope Gate, London, W.1. 9926

TO LET, furnished, old Ferry House, just modernised, to Architect and family, or two young Architects. Some work available on house nearby. Very country district; rough shooting. Box 9945.

Educational Announcements

4 lines or under, 7s. 6d.; each additional line, 2s.

R.I.B.A. AND T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.), and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.), prepare Students by correspondence. 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

R.I.C.S., I.Q.S., and I.A.A.S. Postal Courses for all exams. including R.I.C.S. Preliminary and I.Q.S. Special Test conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7, KEN 4477/8/9. Descriptive Booklet on request. 7020

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